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Education in Ontario: 1980-2005 Scenarios on the Future

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Education in Ontario: 1980-2005 Scenarios on the Future

Paul Collins
Norman Henchey
Hugh Stevenson

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INTRODUCTION

In 1979 the Research Branch was given the mandate to undertake studies on future trends and strategic planning. As one of its first future-oriented projects, the branch commissioned the writing of three scenarios about education in the Province of Ontario to the year 2005.

A scenario is a written description of possible or even probable events in which paths, actors, and incidents having an important bearing on the major events are identified. The major purpose for writing such a scenario is to stimulate thought. It allows the reader to examine the outcome of a chain of hypothesized events and to react to the concepts, issues, and ideas postulated in the writing.

There is a certain danger in the writing and interpretation of a scenario. It arises from the nature of the scenario itself — from its being part fiction and part pedagogical tool. Fiction and instruction form a dangerous mix.

As a piece of fiction, a scenario attempts to describe a future that is possible and also plausible, one that not only *may* be realized but *could* be brought into being through a series of specific events. As such — as a representation of a possible and probable future — a scenario does not necessarily carry a set of values. The question of values arises when we move from what *may* happen and *could* happen to what *will probably* happen and *should* happen — in other words when we shift to images of the future that according to some assumptions may be considered to be probable or preferable. We must resist the temptation to confuse what is being described with what is being advocated.

In his scenarios on the effects of thermonuclear war, Herman Kahn described with considerable vividness of language what could occur if certain events were or were not to take place; he was not advocating what he described. It is true that a scenario may try to convince the reader that what is described is probable and preferable, but it may also try to warn against its hypotheses.

Much of recent literature on future trends has been pessimistic and negative. It leaves one with an overwhelming sense of futility in the face of the contemplated circumstances which will shape the world we will live in for the next two or three decades. But to succumb to this sense of futility and not to confront the frightening prospects forthrightly and critically is the surest way to hasten their occurrence.

There is an element of risk in confronting these prospects but risk has always been an ingredient of imaginative planning. To turn away from risk is to succumb to a sense of hopelessness. The only hopeful future remaining rests with the freedom of choice that humans may exercise. The shaping of a future that holds positive opportunities depends to a large extent on the courage of men and women — on their willingness to choose alternatives that involve both greater risk and greater promise.

The three scenarios presented here provide views of the future in which the consequences of taking risks or refusing to take risks are explored. The two scenarios written by Mr. Paul Collins and Dr. Norman Henchey indicate some consequences that could ensue if no attempt is made to adopt new and imaginative policies at the present time. The more optimistic scenario, written by Dr. Hugh Stevenson, shows the long-term advantages of imaginative policies, but also indicates the disruptions and pressures that may accompany the introduction of these policies. The decision not to advance imaginative policies, while easier and less risky in the short run, will likely lead to more intensive and disruptive problems in the long run. One leading futurist, Robert Theobald, claims that we can no longer afford the luxury of doing nothing.

The preceding offer some reasons why scenarios are important at this time. They stimulate thought at a time when new and imaginative policies are needed. The Research Branch decided that three different outlooks on the future would provide a greater range of thought-provoking material. It was felt that one scenario should be written from an optimistic point of view, one from a pessimistic point of view, and one from a middle-of-the-road, continue-as-is point of view.

The writers were specifically asked to address education in the Province of Ontario to the year 2005 and to take a holistic approach. Education does not take place in isolation and it would be foolish indeed to consider its future in a void. Education must be placed in the context of our province, our county, and our world. Dr. Stevenson addresses the world context in a preliminary essay, *Global Considerations: 1980-2005*. The writers address the Canadian and Ontario context in their individual scenarios.

The first scenario, "Cracks and Chips", which reflects the pessimistic outlook, was written by Norman Henchey, a professor at the Faculty of Education, McGill University. The second scenario, "Retention-Tension-Renewal", extrapolates from the status quo and was written by Paul Collins, a vice-Principal at Grimsby Secondary School. Hugh Stevenson, a professor at the Faculty of Education, University of Western Ontario, wrote the optimistic scenario "Education Opportunities in Ontario: 1980-2005". Henchey and Stevenson also contributed material to this introduction.

The scenario writers are responsible for their own views, which are not the views of the Ministry. It is hoped, however, that these scenarios will stimulate thought which will be reflected in new imaginative policies by educational decision-makers at various levels. Each bold step is a step in the right direction.

GLOBAL CONSIDERATIONS. 1980 - 2005

By Hugh A. Stevenson

Recent major studies of future world conditions have several things in common. They tend to be reasonably comprehensive and nearly all of them project an extremely gloomy picture of conditions throughout the world in the next 20 or 30 years. To one or another degree the studies are doomsday scenarios of what is likely to happen unless those who govern the social, political, economic and other significant affairs of the world take concerted action to change the direction of current trends. Nearly all, with one or another degree of alarm, point out the massive deterioration of global conditions that is underway now. All agree that time is running out for the human species and its physical environment. As this process of deterioration continues, life-style and quality-of-life considerations suffer a parallel fate.

In India, Asia, Africa and South America they will decline rapidly and disastrously; in the Eastern and Western industrialized world the deterioration will be very severe but of a different order and magnitude by comparison to less well developed global communities. Many studies point to the escalation of violence throughout the world, and where it is considered in the reports, the probability of global conflict becomes more and more realistic.

None of the reports offer readily available, practical and in that sense "realistic" solutions to eradicate the current problems and future threats that they have identified. At best, they propose solutions which rely on immediate international cooperative action, the hopes vested in a massive technological revolution and new models of world government — all of which have no precedent. Lack of time, they agree, and our inability either to predict accurately or control the human dimension in these problems constitute the most serious dilemmas in the search for solutions. Finally, none of the studies indicate that the full impact of their negative conclusions is inevitable provided that large-scale corrective action is applied in the very near future.

The most recent of these global reports is perhaps the most reliable. The Global 2000 Report initiated by the Carter Administration in 1977 and released late in July 1980 "does not predict what conditions will be like at the start of the next century. But it does depict, by projections made from current trends, the conditions likely to exist at that time — absent changes in public policies, major advances in technology, or unforeseeable events such as an outbreak of war."[1]

Within this context several passages from Global 2000 ... outline vividly the major world problems which will greet the advent of the twenty-first century:

> The gap between the richest and the poorest [countries] will have increased. By every measure of material welfare the study provides — per capita GNP and consumption of food, energy, and minerals — the gap will widen. For example, the gap between GNP per capita in the LDC's [less developed countries] and the industrialized countries is projected to grow from about $4000 in 1975 to about $7900 in 2000. Great disparities within countries also expected to continue.
>
> There will be fewer resources to go around ... By 2000 nearly 1000 billion barrels of the world's total original petroleum resource of approximately 2000 billion barrels will have been consumed. Over just the 1975 - 2000 period, the world's remaining petroleum resources per capita can be expected to decline by at least 50 percent. Over the same period world per capita water supplies will decline by 35 percent because of greater population alone ...
>
> The environment will have lost important life-supporting capabilities. By 2000, 40 percent of the forests still remaining in the LDCs in the 1978 will have been razed. The atmospheric concentration of carbon dioxide will be nearly one-third higher than preindustrial levels ... Desertification (including salinization) may have claimed a significant fraction of the world's rangeland and cropland. Over little more than two decades, 15-20 percent of the earth's total species of plants and animals will have become extinct — a loss of at least 500,000 species.
>
> Prices will be higher ... In order to meet projected demand, a 100 percent increase in the real price of food will be required. To keep energy demand in line with anticipated supplies the real price of energy is assumed to rise more than 150 percent over the 1975 - 2000 period ...
>
> The world will be more vulnerable both to natural disaster and to disruptions from human causes. Most nations are likely to be still more dependent on foreign sources of energy in 2000 than they are today. Food production will be more vulnerable to disruptions of fossil fuel energy supplies and to weather fluctuations as cultivation expands to more marginal areas. The loss of diverse germ plasm in local strains and wild progenitors of food crops, together with the increase of monoculture, could lead to greater risks of massive crop failures. Larger numbers of people will be vulnerable to higher food prices or even famine when adverse weather occurs. The world will be more vulnerable to the disruptive effects of war. The tensions that could lead to war will have multiplied ...[2]

These and other negative characteristics of the world at the end of the century are discussed variously in other reports. Among them are the U.S. *World Conservation Strategy* and independent *North-South: A Program for Survival* announced earlier in 1980, the United Nations World Model, the Club of Rome's World Integrated Model, the less reliable Latin American World Model and numerous others produced during the last decade warning of multiple global disasters.

A number of these projections of current trends agree that the "point of no return", so to speak, will become evident some time in the first half of the twenty-first century unless corrective measures are taken without too much more delay. The symptoms at this stage of decline include "severe environmental deterioration ... population declines caused by rising death rates" and, in one case, "a food crisis in Asia by 2010",[3] all of which will be accompanied by massive social, political and economic chaos as well as much more violence throughout the world.

Until then, they agree, the world is likely to experience "continued economic growth in most areas, continued population growth everywhere, reduced energy growth, an increasingly tight and expensive food situation, increasing water problems, and growing environmental stress."[4] Many types of growth are now exponential; for example, the world's population of about four billion people now is likely to double in the next 50 years. As well, there are many contradictions and circular dilemmas inherent in these forecasts which require resolution. "... development cannot be sustained if ecological systems are disrupted and renewable resources (such as croplands, forests, and water sheds) are abused ... human poverty and degradation cannot be relieved without economic growth and that abuse of resources — such as the wholesale clearing of forests for croplands — is often the result of people acting out of desperate need."[5] Finally, many issues related to the redistribution of wealth, economic monetary and production systems and government expenditures of funds to relieve world problems must be considered in relation to global conditions in the next 20 years.

Early in 1980 *North-South: A Program for Survival*, produced by an independent, international group, led by former West German Chancellor Willy Brandt, revealed several gross inequalities illustrating fundamental weaknesses in human behavior. While $450 billion is spent on arms each year only $20 billion in economic aid is available to the poor nations of the world. The United States contributed $4.5 billion in 1979, just under one-fifth of 1 percent of its GNP, "a smaller fraction than that contributed by any other industrial country except Italy". Described the same way, Canada's contributions are marginally better but remain ungenerous in comparison to urgent needs among poor countries in the southern hemisphere; the UN target of 0.7 percent of GNP has never been met. Brandt's study group concluded by calling for large-scale "political and economic initiatives to change dramatically the entire course of events" rather than placing much faith in solutions to be achieved by further "piecemeal" efforts.[6] Canada contributes 0.43 percent of the GNP to overseas aid.

The United Nations Fund for Population Activities *Report* for 1980 down-played the threat of the population bomb by pointing to a more dangerous explosive — the global "Aspiration Bomb" ticking in the minds of the 125 million babies born each year. Several quotations illustrate the disproportionate wealth, advantages and use of resources in rich countries by comparison to the poor nations. They provide the reasons for the new significance of aspirations amid population numbers:

> A person born in the rich world will consume about 38 times as much as a person born in the poor world ... the 16 million babies born each year in the rich world have about 4 times as much impact on world resources as the 109 million babies born each year in the poor world ...
>
> The developing world has 75% of the world's people ...; 15% of the world's energy consumptions ...; 17% of the world's GNP ...; 6% of the world's health expenditure ...; 30% of the world's food grains ...; 18% of world export earnings ...; 8% of world industry ...; 11% of world education spending ...; and 5% of world science and technology ...
>
> In 1900 the average person in the rich world had 4 times as much as a person in the poor world ... By 1970, the ratio had become 40 to 1 ... Today the pay rise which an American can expect in one year is greater than an Indian can expect in 100 years.[7]

It is not surprising that Herman Kahn observed at the 1974 Couchiching Conference that the rich, western, northern nations can afford to make mistakes while India cannot. The observations of Rafael Salas, Director of the UN Fund for Population Activities are somewhat more germane. Despite the fact that overall world population growth has slowed to just under 2 percent a year, and appears to be falling there is no reason for complacency. He reported:

> ... a third of a million babies are born every day, and 10 of every 11 are born into poverty overseas. Of the 125 million born every year, 15 million don't live to see their first birthday ... Between now and 2000 A.D. it is likely that there will be a further increase in the numbers of poor and a worsening of the depth of deprivation unless urgent measures are taken to alter living conditions in these areas ... What we do now about population and development will determine the living conditions and opportunities for unborn generations of the next century ... if the global village is to avoid calamity the more affluent must learn to limit their

wants. There is a need for a society of sufficiency to replace the distortions of both excess and deprivation.[8]

Population control, declining fertility rates, birth control measures and abortion (in 1980, 2 for every 5 births in the world according to the UN) are only fragmented parts of an extremely complex and threatening world condition which commands immediate attention. The 1981 UN population report hailed as "less alarmist than earlier projections" points out that "world population growth will end in the year 2110" and that "birth rates are falling in almost every region of the world." The population of the world, however, "will more than double in the next 130 years to 10.5 billion with 90 percent of the people living in what are now poor developing countries."[9] Given the scale of these projections it would appear optimism remains highly relative?

From a different focal point, our understanding of economics, the latest Club of Rome report focuses on very similar global concerns. Aurelio Peccei comments in the Preface:

> Nature is being over exploited and wounded, and nobody has yet figured out what the eventual consequences may be. However, badly a scientific theory of assessment of the Earth's 'outer limits' and 'life supporting capacity' may be needed, none exists, not even in outline ... Quite obviously, if society's reckless race towards further expansion remains in the present limbo of unknowingness and indifference, the result cannot but be disastrous. A radical change of outlook, approach and behaviour is imperative ... without a rigorous global management of resources, the needs of an ever more demanding multi-billion society can never be satisfied.[10]

Dialogue on Wealth and Welfare: An Alternative View of World Capital Formation (1980) edited by Orio Giarini calls for a "new economics" which recognizes the "natural environment", the "common heritage of mankind", in economic and educational terms. He argues that:

> ... monetary capital without adequate human development will produce little or nothing and may even be counter productive ... capital (in the classical sense) is *per se* nothing more than a tool to mobilize human action, and is productively usable only in so far as it helps to organize human endeavour better. Which brings us back to the imperative of learning, or apprehending how to control the direction of our course in a world which is showing an increasingly more disastrous tendency to get out of hand.[11]

This sampling of world views and issues is by no means complete. For every point of view there is a counterpoint and numerous competing arguments. In an article entitled "Small is Stupid" Wilfred Beckerman (Fellow of Balliol College) attempted to lay bare criticisms of early Club of Rome works such as *The Limits to Growth*. (1972) and the late E.F. Schumacher's well-known book *Small is Beautiful: Economics As If People Mattered* (1973). While cautioning readers to "beware the bandwagons which anyone can join where no qualifications and very little real knowledge are necessary" he sets the tone of his criticism by suggesting that the first recent book on this economic issue, *The Costs of Economic Growth* (1967) by Ed Mishan should be regarded as "high class polemic."[12] Undoubtedly, Beckerman would agree with Robert L. Heilbroner that "futurology is a game that takes place in its own outer space."[13]

He is farther from the mark when he fails to see how problems of today are linked intimately with:

> concern for the future of mankind. Allowing concern with the distant future to shut out concern with the pressing problems of today (inflation, high unemployment, and widespread poverty) is merely escaping in a time dimension in the same way that many people who display their moral fibre by obsessional concern with distant lands but who are unconcerned with the plight of their next-door neighbours indulge in escapism in space.[14]

It would appear that this critic of the critics has more in common with Aurelio Peccei and other futurists than he may realize. One is left to wonder if Peccei would agree with Heilbroner's pessimism expressed in *An Inquiry Into the Human Prospect* (1975) that "mankind can be brought to care enough about the future to do what is necessary to save the present — especially as regards self-denial." Heilbroner has, however, phrased the key question very articulately and in complete agreement with Peccei: "Can 20th century civilization give up the 'ethos of *science*' (not to mention the work ethic) and forsake the now monstrous ideal of growth for the ideal of stability?"[15]

Most contemporary observers would concur that neither "moral awakening" nor "social action" will be sufficient motivating forces. Heilbroner appears to believe barely that "the competitive instincts of modern man can be transferred from products to services, to education, to health care, to the arts." But he cannot imagine these things being done voluntarily or without the "payment of a fearful price", particularly in freedom. Without resolving the issue, the question is left that democracy may be supplanted to some degree by more authoritarian forms of governance. Both capitalism and socialism may suffer too since they share technological values related to efficient production and have demonstrated little regard in the past for the "pillage of nature" as an impediment to progress.[16]

The ranks of the optimists among world observers are very thin once one eliminates the ill-informed, the fearful and those wearing various types of blinders. One in particular, Herman Kahn, deserves mention because of the publicity his work

and that of his colleagues in the Hudson Institute has received. His reputation as an optimistic future analyst rests on the belief that free-enterprise, corporate-industrial intelligence will be sufficient to adjust to negative eventualities in the future. Such qualities will save those who possess them.

While the world will be very different in the next 20 or 50 years, human intelligence will prevail and all will be relatively well. World conditions will likely be better depending on the rate of adjustment that proves to be possible and the degree to which our scientific and technological inventive capacity can be marshalled to solve world problems.[17]

Despite his appealing ideas Kahn and others who adopt a similar basis for their optimism are not without their critics. Many who fear the consequences of excessively technocratic solutions remain sceptical of Hudson Institute insights. Michael Marien phrased it nicely in a recent article. "Technological progress, no matter how ... spectacular, will count for naught if we are engulfed in a widespread nuclear war, massive pollution, economic collapse, or a Big Brother Society devoid of opportunities for human satisfaction."[18]

Even though futures thinking is fraught with much healthy intellectual disagreement, gradually, a consensus seems to be forming that a new stage of historical development is dawning. As yet, it is not well understood and little agreement has emerged regarding its specifics. As a basis for understanding the future, however, in addition to global forecasts which are largely pessimistic, a number of celebrated attempts have been made to identify and explain in broad terms what is happening to the world.

Perhaps the best known in North America, for example, is sociologist Daniel Bell's conceptualization of the post-industrial society. As the shift away from industrial production and consumption to a social economy based more on services takes place our lives and values are transformed radically. From an entirely different point of view, the advent of the electric age, Marshall McLuhan reached similar conclusions regarding the impact of certain types of media on human society. The most recent view is Alvin Toffler's new book entitled *The Third Wave* (1980).[19] He interprets the agricultural revolution as the first wave, the industrial revolution as the second and, the third, which is underway now, as the effects of the first two in relation to the unparalleled scientific and technological revolution which began several decades ago. Often these studies seeking broad interpretations appear to be more optimistic than other forecasts which focus directly on identifying the magnitude of problems confronting the world.

Easy solutions, however, remain illusive in all cases; the margin of time remaining to find and implement them seems to be the most optimistic note critical world observers are capable of striking in unison.

The concluding observation in this summary of global problems and what must and can be done about them comes from Leon Katz, retired director of the Saskatchewan Science Policy Secretariat. He believes:

> ... the main task before us is not pollution, energy shortages or even food production for the masses of a growing world population, important as these may be. It is how to orchestrate the solutions to all these problems and many others like them into a coherent transition from today to tomorrow without riots, revolutions or dictatorships. Above all, we must not do anything to shorten the time span remaining in which to accomplish such a transition by any actions, no matter how well intentioned ... we have less than 50 years in which to adopt and implement a social structure as different from our present way of life as day is from night.[20]

Katz suggests his own view of a useful approach to current and future difficulties with an apt quote from Spinoza: "Without hope there is no fear and without fear there is no hope."[21]

The basic issue, it would seem, is still how well survival can be managed by exercising the best choices among complex alternatives. In this respect we continue to have a bond in common with our predecessors. Opportunities remain to achieve new quality-of-life goals as well as to continue facing life-and-death considerations. While much has changed recently in the world, and much of it has proved to be very intimidating, the short-term margin for optimism and hope appears to be secure enough to avoid the negative consequences of several less useful attitudes — political inaction, personal complacency, public apathy, and panic all symptoms of the societal paranoia caused by excessive fear of the future. The use that is made of the time remaining for choice among a wide range of personal and public policy alternatives will largely determine the spectrum of positive to negative colours in our futures. The scenarios that follow attempt to illustrate holistically the consequences of different sets of policy choices for Ontario education in the period 1980 to 2005.

Notes

1. Luther J. Carter, "Global 2000 Report: Vision of a Gloomy World" in *Science*. Vol. 209 No. 1 (August 1980), p. 575.
2. *Ibid*., p. 276. The following volumes were released on July 24, 1980. *The Global 2000 Report to the President*. III Vols., Washington, D.C. Government Printing Office, July 1980. Vol. I *Summary*.; Vol. II *The Technical Report*.; Vol. III *The Government Global Model*. Another book which is useful and readable is the anthology prepared for the Toronto Global Futures Conference in July 1980. It is a reliable sampler of current futures thinking on a wide

variety of themes by many authors. Frank Feather ed. *Through the '80s: Thinking Globally, Acting Locally*. (Washington: World Futures Society, 1980). It is available from The Canadian Association for Futures Studies, #302-100 Gloucester St., Ottawa, Ontario K2P 0A4. For brief surveys see: Leon Katz, "Some Global Issues Facing Mankind," in *Futures Canada*. Vol. 2 No. 1 (1977), pp. 1-5, Anne W. Cheatham, "Perceptions of a Small Planet" in *What's Next? Congressional Clearinghouse on the Future*. Vol. 4 (1980), pp. 1-3 and Geoffrey Barraclough, "The Great World Crisis I" in *The New York Review of Books*. (January 23, 1975), pp. 20-27.

3. Carter, *Op.Cit.*, p. 276.
4. *Ibid.*, p. 275. See also: *North-South: A Program for Survival: Report of the Independent Commission on International Development Issues*. Willy Brandt, Chairman (Cambridge, Mass.: MIT Press, 1980), 304 pp.
5. Carter, *Op.Cit.*, p. 276.
6. *Ibid.*
7. George Hutchison, "Aspiration Bomb" Ticking in Third World" in *The London Free Press*. (June 21, 1980), p. A7. For other similar comparisons see: Dick MacDonald ed., *The Population Story From Now to 2000*. (London, Ontario: School of Journalism, The University of Western Ontario, 1979), 184 pp. and "The Famine Forecast: 1 Million Dead in Africa This Year . . . 'No one Cares About the Future'", *The Globe and Mail*. (September 16, 1980), p. 12. See also "Report on Ecumenopolis, City of Tomorrow (Part One)," in *Ekistics*. Vol. 47 No. 282 (May/June 1980) for a complete issue projecting global urban growth. For a brief discussion of serious issues, closer to Canada, such as the shortage of fresh water in North America, the electronic transmittal of information and genetic engineering see: Cheatham, *Op.Cit.*, pp. 1-3. As she points out, "The next decade is going to be very hard going — partly because of decisions we made in the last decade — partly because of the decisions we are making now." p. 1.
8. Hutchinson, *Op.Cit.*, p. A7.
9. "Population of 10.5 billion Seen for World in 2110," in *The London Free Press*. (August 5, 1981), p. C2.
10. Orio Giarini ed. *Dialogue on Wealth and Welfare: An Alternative View of World Capital Formation: A Report to the Club of Rome*. (Toronto: Pergamon Press, 1980). Press Release No. 10, p. 1.
11. *Ibid.*, p. 2.
12. Wilfred Beckerman, "Small is Stupid . . .," in *The Times Higher Education Supplement*. (November 23, 1979), p. 14-15.
13. Quoted in Melvin Maddocks, "Quo Vadis . . .," in *Time*. (April 1, 1975), p. 70.
14. Beckerman, *Op.Cit.*, p. 15.
15. Maddocks, *Op.Cit.*, p. 70.
16. *Ibid.* For several other points of view see: "Storm Warning — Six Scenarios From Interfutures," in *Futures*. Vol. II No. 5 (October, 1979), pp. 445-451.
17. See: Herman Kahn *et. al., World Economic Development: 1979 and Beyond*. (Boulder, Colorado: Westview, 1979) and an analysis by the Director of the Hudson Institute in Canada and one of her colleagues: Marie-Josée Drouin and Barry Bruce-Briggs. *Canada HAS A Future*. (Toronto: McClelland and Stewart, 1978).
18. Michael Marien, "The Good News and the Bad News: Optimism vs. Pessimism in Recent Writing About the Future," in *The Futurist*. Vol. XIV No. 3 (June 1980), p. 9. See also: John R. Seeley, "Is Hope Warranted? What Will a Humane Future Require of Us?" in *Futures Canada*. Vol. 4 No. 1 (1980), pp. 4-25.
19. See: Daniel Bell, *The Coming of Post-Industrial Society: A Venture in Social Forecasting*. (New York: Basic Books, 1973); *The Cultural Contradictions of Capitalism*. (New York: Basic Books, 1976) and Alvin Toffler, *The Third Wave*. (New York: William Morrow, 1980). For a general and critical discussion of future watching see the four articles in the following: "Future Chic," in *Saturday Review*, (December 1979), pp. 23-38.
20. Katz, *Op.Cit.*, p. 5.
21. *Ibid.*, p. 3.

CRACKS AND CHIPS: A SCENARIO FOR ONE POSSIBLE FUTURE OF SOCIETY AND EDUCATION IN ONTARIO 1980 - 2005

by Norman Henchey

Murphy's Law: If anything can go wrong, it will go wrong.
Mrs. Murphy's Corollary: Murphy was an optimist.

PART ONE — THE 1970s: FOREBODING

Those who are inclined to think of the fifties as 'fabulous' and the sixties as 'swinging' are hard pressed to find for the seventies a label that is more positive than 'sobering'.

The decade of the seventies begins with the innocent confidence that characterized the sixties. Although there are problems and some reversals, the long-term trends are in the direction of progress: economic growth, the expansion of our institutions and services, broader distribution of educational, social, and occupational opportunity, the expansion of knowledge, and a growing sense of competence in managing our affairs. Even the chill of October 1970 is a temporary if tragic exception to the generally benign climate.

The education systems of Canada have been undergoing expansion and reform: some like that of Québec have been thoroughly transformed, others like that of Ontario have built upon the sound structure of existing policies, institutions, and organization. Ontario enters the seventies with a rationalized system of school boards, a diversified network of post-secondary institutions, expanding educational facilities that attempt to meet the growing expectations of the population, a highly qualified teaching force, an educational leadership that can only be described as enlightened, and a philosophy open to new approaches to living and learning.

As we move further into the seventies, we begin to see the signs of gathering storms: hijackings and terrorism, OPEC and oil prices, inflation and unemployment, separatism and sovereignty-association, strikes and conflicts, protests and pollution, doubts and disillusionment. If more and more of us can now afford coloured televisions, the messages of the media are more and more disturbing.

The hypothesis of progress is challenged by the growing literature of pessimism: Toffler's *Future Shock*, the Club of Rome's *The Limits to Growth*, Robert Heilbroner's chillingly logical *An Inquiry into the Human Prospect*. In *Time* Magazine we can read about "The Nightmare Life Without Fuel", in *Penthouse* about "The Last Days of Earth", and the *Futurist* announces: "Countdown to 1984: Big Brother May be Right on Schedule". In *Saturday Review World* Maurice Strong attempts to make "The Case for Optimism" but is moved to write:

> Doomsday is possible — even probable — if we continue on our present course, but it is not inevitable. It is possible to opt for a future of unparalleled promise and opportunity for the human species. But this future can come about *only if we make a radical change in our present course*. (emphasis added)

Yet for Canadians and for Canadian educators, this shift in mood from optimism to pessimism, this growing anxiety about the future all seem somewhat distant. In 1980 an Ontario report can acknowledge that "we can expect" such circumstances as growing inflation, financial restraint, decline in job opportunities, reduction in energy consumption, aging population, decline of the nuclear family, pressures to accept more immigrants, increased threat of nuclear destruction, growth of terrorism, greater need for environmental control and conservation, and shifts in the economic balance within Canada. This is quite some list for pages 1 and 2 of a report called *Issues and Directions*, yet the calm and confidence return on page 3.

In the seventies, the pressures are still questions. We recognize that the world now is an interdependent whole, bound by satellite communication, linked monetary systems, and intercontinental missiles. In this socio-political ecology, the effects of violence anywhere are felt everywhere. The Ontario way of life is premised on security and continuity, yet our security may no longer be within our control. Our society is also energy intensive but it is only since OPEC that we have "discovered" energy. Canadians are also learning lessons in applied economics as they feel the effects of tougher international competition, the floating Canadian dollar, and the price of gold. The practical lessons of economics are taught more forcefully by travel costs than by the theories of the experts.

We feel a second set of pressures coming from the United States. They have always been the bench mark for our economic development and the patron of our arts. Our economy does not wax if their economy wanes; their recession is our de-

pression; their energy demands are not indifferent to our supplies; we are no longer sure we have effective immunization to their disease of urban violence. Will we march in step with them in their movement towards conservatism? Everywhere we feel the pressure of American anxiety.

And we have our own pressures, "Made in Canada". The pressure from Québec on Ontario is to redefine the political interdependence between the two provinces; from the Atlantic region it deals with political dependence of that region on Ontario; from the Western provinces it is a growing claim of political independence. And there is the continuing moral claim of native peoples for both identity and influence. There is a sense, then, that the internal preoccupations of Canada are essentially political — the distribution of power — and these pressures all seem to be leading in the direction of greater diffusion of power, which can only mean away from Ontario.

As is usually the case, education is largely insulated from these large questions and it will be some time before their effects are felt, probably with surprise. The educational pressures are largely internal to the structure of schooling. The change in educational pressure is dramatically illustrated by the contrast between the poetic ecstasy of the Hall-Dennis Report on aims in the late sixties and the prosaic agony of the Jackson Report on declining enrolments in the late seventies. It has been a short decade from *Living and Learning* to *CODE*.

The shift from expansion to decline in the educational system has been difficult for many educators to appreciate. Teachers who have worked heroically in the noise of construction and the crowding of temporary classes cannot easily adjust to "For Sale" signs on school buildings; teachers trained in emergency programs during summers find it hard to come to terms with redundancy; administrators once harried by the coordination of expansion must adjust to the management of decline. Do any teachers have job security? Will there be more labour conflict in education? What will be the effects of declining enrolment on the quality of teachers and on the kinds of assignments given those who survive?

To make matters worse, there is a growing feeling in the society that the schools are declining in areas other than enrolments. There is criticism of the quality of learning: performance in standardized tests, basic literacy and numeracy, discipline, academic rigour, adaptation to the needs of minority groups, relevance for occupations. Finally, there is growing resentment about increasing educational costs in a period of decline in quantity and quality. Schools need to be more accountable to the public in general and the community in particular.

From many points of view, the educational problems of Ontario in the late seventies are less serious than those in most other places. The province is blessed with stability and affluence, the most sophisticated educational organization and tradition in Canada, exciting alternative and experimental programs, and a comprehensive post-secondary structure. The Ministries of Education and of Colleges and Universities have provided far-sighted educational leadership in education while preserving the rich diversity that comes from local and institutional initiative.

Why is there, then, a sense of foreboding, an anxiety that the problems in Canada, North America, and elsewhere in the world will undermine or even shatter the smooth development of Ontario? Why the sense of concern that Ontario may be losing the initiative? Why is there doubt in the ability of the educational system to cope with the new challenges?

Is Ontario and its educational system slipping into decline?

PART TWO — THE EARLY 1980s: DECLINE

The optimists and pessimists of the 1970s differed sharply on the long-range potential of our resources and on the promise of technology to solve our major difficulties. They did agree, however, that the 1980s would be a turbulent, painful period of transition after a prolonged period of plenty. And they were right.

As the decade begins, governments in all industrial nations are having a great deal of difficulty "managing" their economies. While economists fence with forecasts, inflation and unemployment continue to oscillate at dangerously high and erratic levels. The North American public develops a morbid fascination with the Great Depression of the 1930s and "Depression Nostalgia" is among the few 'growth' industries. The more sophisticated debate knowingly over Perrier water the inevitability of the Kondratieff cycle. "No, it can't happen again because of improved stock market and banking regulations". "Yes, it can happen because of the international interdependence of economies and skyrocketing energy costs. The effects would be harsher because fewer people live on farms".

By 1983, a number of trends can be clearly identified. First, no one seems to have a fundamental understanding of the causes and consequences of the fluctuations in employment, investment, inflation, gold prices, and international monetary relationships. Second, industrial societies cannot presume on the reliability and reasonable costs of energy sources, and it will be ten to fifteen years before alternative sources of energy are feasible. Third, all aspects of the manufacturing industry in North America are under pressure from growing costs, competition from third world countries, and from the competence of Japan. Fourth, in many industries automation is spreading rapidly, displacing thousands of jobs every week. Fifth, there is a troubling increase in the educated unemployed, both young graduates and displaced mid-

career workers. Sixth, there are increasing demands on the service sector for social services, unemployment benefits, more flexible pension policies, welfare, and other forms of social assistance. Seventh, in North America there is an acceleration in the movement of business and industry west and south. Economic power is collecting in Alberta, British Columbia, Arizona, Texas, and California, draining Québec, Ontario, and northeastern United States.

But it is energy costs that tighten the vice. The price of oil climbs steadily through the eighties, from $35 to $40 to $50 to $55 to $70 by 1984. Temporary, localized shortfalls become more frequent and gasoline rationing is introduced in 1985. This has the expected multiplier effects on the economy. The automobile industry is in serious trouble. First, one automaker, then a second, must seek financial dialysis from governments with massive unemployment in Michigan and Ontario as the price of free enterprise. And through the auto industry the slump is felt in the dependent suppliers of materials and service stations everywhere on the continent.

There are other consequences. Travel costs rise sharply, especially for airlines, and travel volume drops with serious consequences for tourism. Many trucking firms go out of business, out-of-season foods become luxuries, and for many meat is no longer a regular focus of menus. Energy costs also increase the pressure on many manufacturing industries, driving some to close and others to relocate closer to relatively inexpensive hydroelectric power in eastern Labrador. Home construction goes into decline as fewer people have the capital or the confidence to purchase new homes and as major gaps in public transportation networks bring suburban development to a halt. Strikes and lockouts spread from one industry to another and from one branch of the public service to another and increasingly these are marked by violence.

As the mid-1980s approach, economic priorities of governments in the industrial world shift from modest GNP growth to maintenance of steady-state to minimum-impact contraction. "Acceptable" levels of inflation and unemployment rise to 18%. The social and political effects of this difficult economic situation in North America would be more critical were it not for the news from around the world: strike-ravaged Britain, martial law in Rome, the partition of Lebanon, massive famine in Africa, drought in India, and military dictatorships throughout Latin America. In the United States, violence is endemic along the east/south rim running from New York to Florida and west to the Texas-New Mexico border.

Against the backdrop of these events the Banff Federal-Provincial Conference of 1985 makes some encouraging progress on a formula for amending the constitution. There is no doubt that the policy of dispersing the federal civil service across the country and the institutionalization of the Council of Premiers as a permanent addition to the structure of the federal government both have contributed to the new "collegial orientation" of intergovernmental relations.

The effects on Ontario of these changes have not been unequivocally beneficial. The transformation of the city of Ottawa from the centre of the federal government to a largely ceremonial and symbolic court (the parliamentary Versailles, one editorialist dubbed it) affects the whole region of southeastern Ontario and western Québec. The exodus of thousands of civil servants from Ottawa combined with the massive unemployment in the Oshawa-Hamilton-Windsor auto and steel industries leave the Ontario economy reeling.

Despite the weakened economic and political position of Ontario, the province has managed to preserve clear leadership in an area of considerable promise for the future. Research and development in the field of communications, centred in Ottawa and assisted by the Federal Department of Communications, has made substantial advances in the use of fiber optics, the development of interactive computer and satellite systems. Breakthroughs in biomedical and genetic research, and in the study of mood-altering drugs, have drawn international attention to the consortium of Ontario hospitals and to the pharmaceutical companies which have so generously underwritten the research.

Although there is a general climate of stability in the Province, the institutions of Ontario are increasingly under stress, caught between pressing demands and declining resources. In the school system, the enrolment declines of the 1970s continue through the 1980s; by 1985, elementary enrolments have dropped by 25% from the 1979 figure, secondary enrolments by 15%, colleges by 5% and universities by 20%. These declines are more severe than many predicted due to emigration from Ontario to the west, increasing drop-out rate at the secondary and post-secondary levels, and a growing tendency of many well-educated parents to direct at least part of their children's education at home. As a consequence, local school boards are faced with a triple threat of releasing teachers, closing schools, and cutting costs, all without compromising the quality of educational services. The general policy of releasing teachers on the basis of seniority is coming under attack in the press as a 'cop out' that disregards issues of quality, and teachers' associations are under increasing pressure from their younger members to negotiate a more comprehensive set of criteria for reducing staff.

In every community, school closing is an emotional issue arousing strong feelings among parents and often leading to bitter proposals and counterproposals among schools competing for at least temporary survival. The problems of school boards are aggravated by the declining revenues from falling property evaluation and the growing number of ratepayers in tax arrears. Since the

revenues of the provincial government are also declining, there is little more the Ministry of Education can do to aid local school boards. Nor is there much the Ministry can do to assist postsecondary institutions. The community colleges despite drops in enrolment are perhaps in the best position of any educational sector, serving as they do a variety of needs for a diversified clientele. The universities are not so fortunate and in 1984, they warn the provincial government that unless more substantial aid is forthcoming, there will be a complete breakdown in the university system before the end of the decade. The government's response is to leak to the press a plan to reduce the number of universities by one-third.

Despite Ministry attempts to standardize curriculum and increase quality control of the system, public dissatisfaction is not eased. Parents' demands are becoming more urgent: they want thorough grounding in the basics, traditional values, mastery of personal and vocational skills including self-reliance and self-defence, teachers who are models of what they teach, fair and accurate evaluation, and public accountability, and they want all this at reasonable cost. In areas where the public schools are unwilling or unable to satisfy these demands, many parents are turning to private institutions and other alternatives.

In September 1985 the teachers of Hamilton begin a strike that is to last three months. The issues are not unusual: guaranteed job security and more generous early retirement provisions. The teachers return to work on December 15th without a settlement after three teachers on a picket line are killed in a confrontation with an angry crowd. The OPP is investigating but no arrests have been made. In October 1985, the Report of the Government Task Force on Violence in the Secondary Schools is released to the public. It shows that in the academic year 1984-85, one secondary teacher in eight suffered some form of physical attack from a student. The Ministry of Health report on teacher alcoholism is expected in two months. In November 1985 the Ministry of Education announces that there will no longer be grants for school bussing beginning September 1986. Suburban and rural boards are reacting with anger and dismay; many boards will have little choice but to close their large secondary schools and to distribute the pupils among existing and retired' elementary schools.

In December 1985 the Premier of Ontario announces the establishment of COMONT, the Ontario government communications consortium linking in a comprehensive network the research and development facilities of seven leaders in the field of communication systems with the federal Ministry of Communications, Bell Canada, and the Ontario Communications Authority. Present at the news conference is the U.S. Secretary of Communication and Technology.

In January 1986 OPEC announces that it is raising the price of oil to $100 U.S. per barrel. Two days later there is a coup in Saudi Arabia.

PART THREE — THE LATE 1980s: CRISIS

By the autumn of 1986, the picture in North America is becoming clear. Canada and the United States are in an economic depression. Social unrest is growing. Governments are unable to control the course of events. What stability and continuity exist come from civil servants and law enforcement officers. If present trends continue, complete social breakdown is a possibility.

This is the sequence of events that has led to the current crisis. OPEC raises the price of oil to $100 U.S. per barrel. Continuing chaos in Iran and a leftist-Islamic coup in Saudi Arabia make North American energy sufficiency a top priority, whatever the cost. Unstable world situation and continuing tension with the U.S.S.R. make military claims for petroleum paramount. There are severe, uneven, and unpredictable petroleum shortfalls for transportation, petrochemicals, and heating, and prices for these products rise rapidly. The economies of Third World countries are in disarray and starvation threatens large sections of Asia, Africa, and Latin America. Few North Americans can afford private automobiles; most taxis and small trucking companies go out of business. Air travel drops to 50% of 1980 levels. There is a scramble to convert heating systems to coal, natural gas and electricity. Governments end financial assistance to two automakers and both go into bankruptcy; the remaining two merge and move heavily into the production of mass transit systems. High transport costs "regionalize" food distribution and "imported" foods become prohibitively expensive. Travel costs sharply reduce tourism, undermining the economies of many regions and thousands of hotels and motels go out of business. Unemployment rates reach 20%; consumer spending declines and personal bankruptcies increase; there is a general exodus from suburbs by those unable to pay mortgages and high heating costs; government revenues from taxes decline. More and more people are dependent on government aid or government employment. There is a marked increase in violence, general disillusionment with institutions, growing stress, and increased consumption of drugs and alcohol.

This system of interacting forces from energy costs to social decline constitutes what is coming to be called the "ecology of decay" and governments are limited in their capacity to deal with the challenge. In the United States, government initiative is hampered by bureaucracy, lack of dynamic leadership in key positions, and excessive preoccupation with legal rights. Many critics accuse the President of evading his responsibility to protect the nation's interest when he rejected the Pentagon plan to "introduce" strategic neutron

bombs to the oilfields of Saudi Arabia after the coup. At the same time, there is a rise of regional groupings within the U.S. led by the powerful conference of western and southwestern states, causing anxiety in traditional elite groups.

In Canada, it has become clear that there is little future for the political independence of the country. The weakening of the central government and the unchallenged self-interest of regional blocks produce a mirror image of the new redistribution of power that is taking place in the U.S. The three pressures of economic depression, continental defence, and energy grids all tend to support continental policy making among the expert committees of government and private groups that have been involved in close collaboration. Groups of civil servants in strategic planning units meet on a regular basis at conferences and conventions, or through teleconferencing, with corporate planning officers, security force planners, and some researchers working in universities; they exchange working papers and "network" on issues of mutual interest and concern.

Biological research leads to minimally publicized breakthroughs in the development of new bacterial strains and new experimental drugs euphemistically referred to as "behaviour enhancing". New biotechnologies are being applied in experimental settings to bioarchitecture, fertilizers, bioalternative sources of energy, psycho-pathology stabilizers for the rehabilitation of criminals, and learning enhancement pills. At the same time, communications research that began in the seventies seems to be bearing fruit. The collaboration of government communications departments in both Canada and the United States with private industries is approaching the point where the hardware, software, transmission networks and accounting-marketing issues are all coming together in a single system.

It is still problematic whether these areas of development will have the time and opportunity to have impact on the more widespread trend to disintegration. For the present, two other growth industries continue to have a reciprocal relationship with the general decline: the security system, both military and private sectors, which has increased 300% since 1980 and the entertainment industry in every aspect from recreational drugs to videocassettes.

If Ontario is hard hit by many of the areas of decline, by the collapse of the auto industry, decline in manufacturing, and panic of the insurance sector, it is also in a position to benefit from the areas of promise. Its communications industries, centred in the Ottawa area, manage to attract substantial Arab funding to replace the declining patronage of the federal government. In biotechnological R-and-D it is certainly holding its own and managing to attract a good number of top biology researchers from the generally menacing environments of the large American cities. The Toronto-based film and television industry, with new financial lifeblood from an investment group representing Kuwaiti interests, is hard pressed to keep up with the demand for television and videodisc production.

The most immediate problem facing Ontario is the maintenance of public security, especially in the metropolitan and suburban areas. Every apartment complex now has its squad of armed security guards who have a general reputation for being "fast with their guns". There is growing support among the public for vigorous protection of person and property, as well as impatience with the existing processes of prosecuting criminals and the rising costs of penal institutions. The problem of maintaining some facade of security is most severe in the suburbs north and west of Toronto. The increasing number of private homes abandoned by residents makes control of vandalism and arson exceedingly difficult by the undermanned police forces. There is tolerance of the so-called "martini vigilantes" who travel the suburbs on bicycles.

Education in Ontario is going through one of the darkest periods of its history. By 1987, thirty boards are under government trusteeship, unable to secure the money necessary to meet their payroll. In a number of cases government trustees, acting under special emergency powers, "separate" on what many consider subjective and arbitrary grounds the number of teachers required to bring expenses in line with revenues. In response, the teachers of the boards go on strike, are dismissed, and are replaced from the provincial surplus pool.

As elementary school enrolments begin to level off, secondary and post-secondary enrolments continue to decline. It is expected that by 1990 secondary enrolments will be close to one-half of their 1980 level and university enrolments will be off one-third for the same period. The newly formed Ontario Universities Commission in 1988 announces the schedule of closures for universities and a new comprehensive "separation policy" for tenured academic staff.

The teaching force is aging rapidly, it is demoralized by the speed of the decline and by job insecurity, and is angered by public hostility. At the secondary level, teachers are unable to prevent the erosion of drop-outs, to control the violence, or stimulate the interest of those who remain. The government reforms of 1984 to tighten control, standardize curriculum, and toughen evaluation procedures appear to have been largely a failure.

In many parts of the province, parent and student power are becoming forces to be reckoned with. Parents are insisting on more control over school policy, over which teachers stay and which ones leave, over the choice of the principal, and over curriculum and instruction policies. Groups of parents purchase surplus schools and convert them to private institutions. By the late 1980s there is almost a free-market economy in schooling. Schools compete with one another for pupils; the costs and risks of commuting stimulate the grow-

ing home-study market and many institutions offer correspondence alternatives to their regular programmes.

A more devastating challenge to the dominance of the public school comes from the manufacturers of learning systems. Early in 1986 the first self-learning centre opens in a shopping centre in Etobicoke, a franchise of Learn-Tech International. It offers comprehensive learning systems including rental of home computer, access to a master data bank, complementary text materials, evaluation, tutorial services, and certificates of competence in different areas of study and skill. Dismissed by some as "Mental McDonald's" these and similar franchises multiply rapidly. These developments pose a challenge to compulsory attendance laws and lead to increasing pressure on governments by groups of taxpayers for refunds of their school taxes.

While these issues are simmering, public education tries to cope with an increasingly constricted and demanding environment. Administrators find themselves hard pressed to satisfy the conflicting demands of parents; teachers continue to be 'educational nomads' moving from school to school and subject to subject. Boards continue to close buildings, determine which teachers are to be released, negotiate with local teachers' associations, and explain to "consultants" of the Ministry of Education why the government programmes are not being followed with more scrupulous attention.

Priorities in funding and assignments are given to tough subjects and tough teachers; there is a renaissance in the teaching of Latin in the midst of a strong move to career-oriented disciplines; the arts virtually disappear from the public school curriculum; special education is a service offered only by private schools. Public schools are embracing behaviour modification, competency-based programs, and something called "continuous formative feedback evaluation systems for students" (CONFFESS) in an attempt to demonstrate that in the maelstrom of the competing educational offerings of the late 1980s, they are not wanting in serious purpose or scientific methods.

The CAATs continue to offer what they choose to call "wide-spectrum diffusion of educational services" extending the scope of their courses and the constituencies of their students while other institutions contract. There is less confidence in the fate of the universities. By 1989 the provincial government can only subsidize Toronto, Queen's, Western, and Laurentian. The other institutions are either phased out or are integrated into the community college structure. OISE becomes MESSRAND, the research and development wing of the Ministry of Educational Services and Structures. Many of the university campuses are converted to TEDs (Total Environment Developments) for Mature (formerly Senior) Citizens. Some of the redundant academic staff find themselves in the employ of CAATs or security systems, some move into the public entertainment industry, some handle custodial roles for mature citizens, and others are just "gliding" (the most recent euphemism for welfare).

As administrators spin the secular prayer wheels of crisis management, as teachers proclaim their solidarity while their dug-out of schooling careens down the river to the waterfall, as the academic researchers contemplate the appropriateness of non-parametric statistics for affective objectives in the pre-primary education of atypical minorities, the real world of North American life comes to its moment of decision.

One of the major actors enters the stage with the election in 1988 of the first Hispanic U.S. president, a native of New Mexico and former chief FBI agent in charge of the Cleveland office. The Canadian prime minister, elected in 1987, is an electrical engineer who has acquired a reputation in the field of remote sensing, a competence, his party wryly points out, of no small advantage to a successful politician.

The major challenge to political leadership in North America comes during the winter of 1989. It is not easy to explain why the challenge occurs at precisely that time. A grave political-social-economic fault runs across North America and it is only a matter of time before the earthquake comes, but the precise moment is impossible to predict before the event and difficult to account for afterwards.

Throughout the eighties the frustration of those who find themselves becoming marginal is matched by the resentment of those who are in the essential services of power, energy, food production, welfare, entertainment, health services, and public transportation.

Strikes in the public sector begin after Christmas in 1989. At first little notice is taken of the phenomenon since it involves mainly garbage and public transit workers in New York City, teachers in six major American cities, paraprofessional medical workers in the hospitals of Québec and postal workers in Canada, all groups inclined to strike on a regular basis. There is no evidence of conspiracy or even coordination among these groups.

As negotiations drag on, the strikes spread to farm workers in California, public transit workers in Toronto, Montreal, and seven U.S. cities, hospital workers and teachers throughout Ontario and British Columbia, telephone workers in several parts of the United States, and coal miners in Nova Scotia. Local governments and public corporations with whom the unions are negotiating seem curiously indifferent to the spreading paralysis in public services and shortages in food supplies. There is sporadic violence on picket lines as angry groups confront picketers, and security forces are slow to intervene.

On February 20. 1990, Hydro workers in Québec and Ontario walk off the job and a series of power failures ripple like firecrackers through major urban areas in Ontario, Québec and northwestern United States. The strikers are joined by utility

workers in other areas of the continent and blackouts are occurring with increasingly regularity.

Local horror stories become national events through prime-time television: elderly citizens contracting pneumonia in underheated homes for the mature and unable to receive treatment in hospitals with only a skeleton staff; teenagers rampaging through empty comprehensive high schools; gasoline rustling; increasing number of injuries and deaths from privately owned police dogs and handguns; suburban vigilante groups attacking ghetto residents crossing middle-class neighborhoods; fires burning out of control in abandoned motels and apartment buildings.

"Things can't get any worse", say the optimists.

"Oh yes they can", say the pessimists.

"If this doesn't stop, the Russians will attack us in our weakened state", say the patriotic.

"Why should they bother? They just have to wait a little", say the cynics.

"The end of the world is nigh. Repent!" say the religious.

"It is, perhaps, time to act", say the mandarins.

PART FOUR — THE 1990s: ORDER

The premier of Ontario moves first. He calls the legislature in emergency session on March 1, 1990 and after eight hours of debate, the legislature passes what is to be the first of a rapid series of self-enacting laws throughout the jurisdictions of North America, ensuring that workers returned to their jobs and public services restored.

The Ontario Law 13 is a prototype. It grants modest increases in salaries to workers in the public service, job security within the public sector to "qualified" employees. It specifies the date and hour on which all workers in the public service are required to return to their jobs. It lists the penalty of five year's security detention for disobedience, without further process of law and without appeal. It lists the names of all individual citizens of the Province of Ontario to whom this law applies. Québec, British Columbia, the Canadian Government, the U.S. government and the legislatures of the major American states follow suit with extraordinarily similar legislation. In an unprecedented agreement between the Canadian and U.S. governments, all security forces of both countries are placed under the command of a unified security committee.

The familiar voices of television newspersons and a few new voices (a number have begun their vacations) describe how positively workers have responded to the law. Newspapers report briefly that there are minor scuffles between troublemakers and security officers and that small groups of workers here and there have been killed resisting arrest for deliquency, but the number of delinquent workers sent to prison in virtue of the legislation is surprisingly small in most places on the continent.

There are no major addresses planned by either the U.S. President or the Canadian Prime Minister. Instead, regional and local officials, premiers, governors, mayors and religious leaders go on local television with more or less the same message: The society is sick and must be returned to health. The medicine may be distasteful for some, but health will be restored if we trust the doctors.

While the security forces are reestablishing some degree of social order and the political leaders are restoring public calm, the strategic planners and policy makers in provincial/state bureaucracies and in key national departments are completing the first phase of their restoration Plan.

The essential elements are the following:

1. Elected political leaders must continue to show high rhetorical profile to ensure confidence and calm.
2. Senior public servants in government and private corporations must assume continuing responsibility for systemic and holistic planning.
3. The complexity of issues has transformed the role of legislative bodies to a review of policy decisions already made.
4. National identities are of secondary importance to continental thinking.
5. The economies of post-industrial North America must focus clearly on the following priorities:
   - — Food production to ensure internal peace and develop a weapon to strengthen international diplomacy;
   - — Arms production to ensure external and internal security;
   - — Biotechnology production to ensure adequate sources of food and energy catalysts, and behaviour modifying drugs;
   - — Entertainment production to service extended leisure-time activities of the population.
6. Research and development must give clear priority to the areas of social and economic need.
7. Culture and value shifts are crucial to the transformation of society. It is the role of education to engineer these shifts in the whole population.
8. Citizens must accept the following values as healthy and normal in post-industrial North America.
   - — breakdown of the distinction among work, job, schooling, education, leisure, avocation;
   - — less reliance on job as a source of satisfaction, meaning, and self-worth;
   - — acceptance of the artificial (in housing,

nourishment, clothing, entertainment) as superior to the natural;

- appreciation of the benefits of pursuing private interests in recreation, personal life, and education and of leaving to those managing institutions the responsibility of guarding public or collective interests;
- discipline in accepting and supporting public policies where the advantage for the community or society may be more important than individual expectations;
- tolerance for diversity in mores, lifestyle, and values among others and readiness to try different styles oneself.

The ONTARIO-2005 Report distributed among senior civil servants, planning officers of major public and private corporations, and selected political leaders, sets the following goals for Ontario:

1. FOOD PRODUCTION: Priority to restoring prime land from suburbanization to agricultural use, with major agricorporations permitted to bid for extended development-exploitation leases.
2. GOVERNANCE: Priority to creating a unified management talent pool, specializing in short-term contract work with private corporations and various levels of government on the continent and abroad.
3. COMMUNICATIONS: Continuing development of home television computer-telephone technology, centred in the Ottawa area.
4. ENTERTAINMENT: Integration of National Film Board, C.B.C. Toronto, Ontario Educational Television Authority, and private film groups into the publicly subsidized ONTERAMICS Corporation.
5. THIRD-AGE FACILITIES: Encouragement of the successful campaign "Ontario: A place to Grow Old" promoting the attractions of small-town Ontario as a place of retirement for senior citizens.

The ONTARIO-2005 Report recommends the "atrophizing" of what is left of the manufacturing sector, elimination of all production of transportation vehicles and parts, reduction of the insurance enterprise, no further expansion of energy production, and modest decline in the exploitation of primary resources.

So it is that as the people of Ontario, like their fellow citizens elsewhere on the continent, prepare to celebrate the mystical year 2000, they have reason to be proud. The quality of their health is among the best anywhere on the continent, thanks to decline in stress-producing activities such as automobile driving and competitive business pressures. The quality of social interaction has been remarkably enhanced by the pervasive and humane security system that combines the most sophisticated surveillance network to prevent aggression with the most sophisticated use of brain implants and behaviour-modulating drugs. The quality of personal enjoyment has been enriched by a diversified repertoire of communication networks, a virtually unlimited wealth of entertainment products, and a controlled consciousness-altering pharmacopoeia that may be sampled with less fear of unpleasant side effects than the proverbial pre-dinner dry martini.

When the history of Ontario's transformation from the depressed eighties to the "new" nineties is finally written, one of the most important chapters will undoubtedly deal with the central role of education. Although we can find many examples of educational reform following behind social and economic transformations, the Ontario experience is an exception and provides a model for jurisdictions elsewhere. In Ontario, the social planners from the beginning have included educational planning as a critical element of the design.

Integration began within the Government of Ontario. The evolution of titles summarizes the story: Ministry of Education/Ministry of Colleges and Universities, Ministry of Education, Ministry of Educational Structures and Services, and finally Ministry of Educational and Social Services which retains the familiar and somewhat ironic acronym MESS but expands the range of responsibilities to include social welfare, recreation and sports, communications, entertainment, and social planning. As a result, the Ministry moved from responsibility for one of the public services to a central position in the transformation of the society.

MESS represents the organism for central planning in Ontario, but it has to be complemented by other organisms for regional diffusion and implementation. In 1992 the Minister of MESS introduces legislation transforming all public and separate boards of education into Boards of Integrated Community Services (BICS) whose enlarged responsibilities include all aspects of formal schooling, educational programs leading to government certification, adult and continuing education, recreation, sports, fitness, cultural activities, community social welfare, and broadcasting within a defined geographic area.

Recognizing that the most important power is the power to define, MESS expands the range of services that are defined as social and educational in the broad sense. These include: (1) public and separate elementary and secondary schools, (2) private schools, (3) alternative schools developed in the eighties to serve a variety of local needs from so-called "free" schools to highly disciplined traditional academies, (4) licenced high-technology educational franchises sponsored by hardware/software electronics corporations, (5) early childhood daycare facilities, (6) special institutions for the handicapped, (7) community colleges, (8) adult education services offered by various organizations and industries, (9) community broadcasting, (10) health clinics and wellbeing facilities, (11) cultural centres sponsored by local communities and

ethnic groups, (12) sports, fitness, and recreational facilities, (13) publishing companies, (14) computer facilities available for general use in homes and institutions, (15) evaluation and certification services to diagnose, assess, and award credentials for competence, (16) universities, (17) research institutes.

The way is now paved to move into the second phase, the transition from compulsory schooling to the concept of Guaranteed Access to Educational Services (GAES). The definition of schooling and education have become so broad that any definition of compulsory learning has little meaning and is unforceable. Similarly, the changing work patterns of adults mean that large numbers of highly schooled parents have little opportunity to hold permanent employment and can be encouraged to devote some of their time to educating their children, effectively supported by the variety of counseling services, learning materials, communications systems, and teaching services which the society is providing.

The basic philosophy of the GAES system is that precise individual vocational skills are not needed by the majority of citizens and that it is unnecessary and undesirable to impose compulsory learning on all citizens. The system relies on the attractiveness of the learning options that are readily available to satisfy the needs of most individuals and to ensure minimum social functioning of all members of the society.

This is the 'common function' of the system. The 'special function' is to identify at early stages of development young people who show promise for (a) advanced study in various disciplines and professions, (b) creativity, or (c) special drive. This is done through routine monitoring of programme and data selection by the individual and by the observations of teachers with whom the individual is in contact. It is for these persons that 'proper programmes' as distinct from 'common programmes' are prepared to test the initial diagnosis, stimulate the development of certain potentials, or redirect the development of inappropriate tendencies.

Finally, the third dimension of the GAES system is the evaluation and certification service directed by MESS which provides, on request, a comprehensive evaluation of competence in any of 1000 disciplines and professions and grants certificates of competence to those who have demonstrated mastery in a field. The purpose of this activity is to recognize in a public way advanced competence of individuals who have pursued a course of study and to protect consumers from claims of competence, especially in sensitive services such as teaching, entertainment, governance, and healing. Such a system makes real for the first time the concept of equality of opportunity whereby every citizen, whatever his or her age or background, may follow a programme of study and may submit to a comprehensive evaluation of competence without reference to attendance at special institutions, age, or artificial prerequisites or quotas.

This system cannot function without comprehensive records. These records must contain not only the individual's learning history (vertical records) but also his social, medical, legal, and psychological profiles (horizontal records) so that systemic decisions can be made on the basis of the 'whole person' and not just on partial and narrow cognitive information. This has been facilitated by the integration of the Personal Information Record System (PIRS) whereby all the information from birth to death is integrated into the one data system coded according to the SIN (Social Insurance Number) and thumbprint. This integrated record system has revolutionized education by making truly individualized instruction a cornerstone of the educational network just as it has revolutionized peacekeeping, government, and control of access to scarce resources.

The place of universities remains somewhat ambiguous. With the decline of the universities in the 1980's and the dissipation of staff and resources, Queen's, University of Toronto, Laurentian, and Western remained the only active university-level institutions. It is not surprising that the changes taking place elsewhere in the educational sector should have swept through the universities, that they have had considerable difficulty transforming themselves to the new realities. They were costly and slow to adapt, and their vocational programmes and research functions were increasingly taken over by other bodies. The universities, however, are now revitalized and provide three functions crucial to the health of the society: contract research for government, software production for the educational network in a variety of areas of study, and direct instruction of the small group of carefully selected students who have demonstrated leadership potential in an area of social priority.

Looking back on the institutions of the seventies and eighties, it was perhaps the colleges of applied arts and technology that contributed most to the new model of the educational network, especially in their adult education activities. One indication of their influence is the large number of CAAT staff who have found their way into important positions of policy making in the networks.

An old-fashioned educator of the 1970s may ask: What is the curriculum of education in the 1990s? What is the content of general education? There are two degrees of curricula, those that unfold in millions of directions for the general development of the many — the joggers of postindustrial society — and those that are laid out for the advanced training of the few — the sprinters who will set the social pace. The 'common curriculum' covers a variety of public media and resources; woven into the common curriculum is a set of basic skills and values — the survival kit of people in the society of the year 2000. The basic skills include the following: decoding common words and expressions; ability to sustain an attention span of 11.5 minutes

for a multimedia presentation (visual-auditory) regardless of content; fundamental "presenting", the ability to fasten on the present moment with enjoyment; interpersonal decorum, the skills of smooth human interfacing minimizing personal tension and interpersonal conflict in the forming and dissolving of bonds such as friendship, marriage, family and work groups. The central values that permeate the curriculum include social discipline and personal fulfillment, the balance of social order and constraint with the individual private pursuit of "becoming"; acceptance of diversity of lifestyle and mores in others, within the general framework of the public good; acceptance of abundance in some renewal areas (entertainment, drugs) without guilt, and scarcity in others (travel, many consumer goods) without resentment.

The 'proper' curriculum designed for the leaders of today and tomorrow is oriented in quite a different direction. It is designed to be counterpoint to the prevailing education of the people at large, downplaying personal enjoyment in the present in favor of greater pleasure and fulfillment in the future, stressing high quality skill and not tolerant of diversity of performance, carefully monitored and directed by teachers rather than permissive and openended. Basic values include the enjoyment of knowledge and understanding for their own sake, responsibility for the proper functioning of society, and the respect for group decision-making.

It should be clear from what has been said that teaching methods, and indeed the role of teacher, have changed with the transition from school system to educational network. All learning follows basic competency/mastery models of learning. These are built into a closed system of objectives (cognitive-affective), selection and structure of content, design of instructional systems (media, materials, learning campaigns) and feedback (evaluation of performance in terms of objectives).

Within the educational network, it is difficult to identify the role of teacher and we rarely speak of teachers as such. Some of the traditional custodial functions have been transferred to the public security corps, and many former teachers have found for themselves rewarding careers in the fields of surveillance, questioning techniques, and social readaptation programmes. Likewise communications specialists, entertainers, diagnosticians, counselors, organizers, and eccentrics are all roles within the larger network of educational services.

As the year 2000 approaches, North America is reshaping itself into a coherent pattern. To criticize the developments as cold, unfeeling, authoritarian, and elitist, is to misunderstand the process, the spirit of the transformation, and the internal and external pressures which have contributed to shaping the pattern. Pattern — Process — Purpose — Pressure — these are the key elements that have changed anarchy to organization, fragmentation to integration, rhetoric into logic, and survival into *épanouissement*. The policies of the 1990s are not a radical departure from the past but the logical extension of policies of the 1970s and 1980s that were weakly advocated, partially understood, and imperfectly implemented.

Economic stagnation, violence, political instability, and general deterioration spread over many parts of Africa, Asia, and Latin America; Western Europe disintegrates into the rival nationalisms that have characterized its history; Japan faces the threats of energy shortages, pollution, and food scarcities; the Arab world returns to its internecine furies; the Soviet Union attempts to put the brakes on the slide of the society into permissiveness; China holds its economic and demographic breath in the hope that the next century will reward its self-control. Yet America, the United States and Canada in close partnership, has achieved internal security, controls an effective weapons system, has food surplus to encourage other countries to support its policies, and has behind it the tough decisions that brought it across the bridge to the post-industrial era.

PART FIVE — A.D. 2005: EMERGENCE

The word that comes to mind is "counter-intuitive".

It is not easy to explain the feeling, the sense that the system of coherence is losing its power, that the system of control is weakening, that the feedback loops are not twisted but are at least dotted rather than solid lines.

A slide toward entropy?

The system planners expected a move towards simplicity as virtue, transcendence as escape, and primitivism as counterpoint to high technology.

They also foresaw a rise in the suicide rate as being a normal and not altogether unhealthy tendency to decide one's future.

Contemplation, biofeedback, return to nature — all anticipated, understood, programmed.

There is no reason to believe that the system is unable to accommodate, assimilate, integrate any aspect of social phenomena.

How then, do we explain the phenomenon of disconnection and dissociation? Why are thousands of people in Ontario, U.S.A. closing down their terminals?

Why are thousands refusing to ask questions of the data banks?

Why are people leaving urban complexes and Total Environment Dwellings and building cabins in the woods with subsistence farming and homemade clothes the main attractions?

Why are thousands of the elite around North America converting to the Amerindian Ecumenical Movement? White Indians?

Why is drug usage declining?

It may, of course, be no more than a passing fad, one of the swings of style that form the cultural rhythm of a dynamic society.

Or is the challenge deeper than this? Are we

witnessing the beginning of the spread of a form of insanity? We have a comprehensive system of communications that provides everyone with a direct link with reality. Preserving a direct link with reality is the essence of sanity. Deliberately to break our link with reality is the essence of insanity, nonrational behaviour. To seek pleasure and avoid pain is the first law of human behaviour. To seek pain or discomfort for its own sake is a pathological condition. To fly from leisure and culture and entertainment and education for toil, struggle, privation, loneliness, and isolation is by definition insane behaviour.

Concern for these questions has led to the establishment of a programme for the training of special educators at Queen's University. The programme will select 20 experienced sociologists-psychologists-educators to study the phenomenon of disconnection. The purposes of the programme are as follows: (1) to identify the populations vulnerable to disconnection; (2) to analyze the causes and conditions that lead to individual and group dissociation. (3) To devise alternative reeducation strategies to reintegrate various categories of individual and collective disconnectees; (4) to field-test these strategies and propose for consideration a comprehensive policy of reintegration.

An institute in Nevada will be teleconferencing shortly with Kingston to study our methods of animating reconnection.

RETENTION — TENSION — RENEWAL: A scenario of trends in Ontario 1980-2005 based on a moderate extrapolation of the present

by Paul Collins

Introduction

It was a strange poll. Two-thirds of those interviewed told the pollster they were optimistic about Ontario's future. And yet, in answer to other questions a majority indicated that nuclear war, or an environmental disaster was likely. Nor did they think that people of different heritages could learn to live together with more understanding. In retrospect the results of a public opinion survey conducted in 1980 seem a sad and accurate measure of the confusion that dominated the minds of the people of Ontario.

Looking back, the best seller list for a typical week during 1980 was also a reflection of the hopes and fears that were bringing stress to the lives of Ontarians. One-third of the top fifteen books were biographies or autobiographies. These were all written by people who had suffered major personal crises, but emerged triumphant and successful. Perhaps readers were comforted by learning that someone had endured more than they had. Maybe it was the vicarious satisfaction people gained by reading about the ultimate success that each book reported. Whatever the reason, it was a relatively inexpensive and pleasant way to appropriate a measure of hope, the raw material from which the desired optimism could be fashioned.

Four books from the list focussed on the economy or on an absolutely foolproof way to "get rich quick". Many people obviously were less concerned with what others had done than with an immediate, and hopefully painless, rise to the top of the economic ladder so that they could find happiness, in spite of the difficult economic conditions.

Three other popular titles recommended keeping healthy and physically fit. What better way, suggested the authors, to avoid the stress of a modern society than to feel better and take pride in a slim, strong, well-conditioned physique.

The two books which sought to address the problem of the future ranked toward the bottom of the list in popularity. Clearly there was some interest in the more holistic, planned approach to the future, which they discussed, but it was not yet the choice of a large group of citizens. People's reading habits suggested that they preferred simple, faster solutions to their problems. Optimism was regarded as the likely by-product of what could be achieved, rather than what could be perceived.

The fifteenth book provided an interesting footnote to these societal trends. It was a book of trivia. It is debatable whether the popularity of this volume demonstrated that people had a desire to escape the stress of life, or possessed a fundamental sense of security that the future would be "better", and therefore had nothing to fear. In 1980 Ontarians wanted to be optimistic.

Energy, Employment and the Economy

In the early years of the 1900s, the preoccupation of the government and citizens of Ontario was the economy. Interest rates fluctuated widely and the inflation rate averaged 12%. But these problems had a broader context. Despite the fact that Ontario contains only 10% of Canada's land mass, her citizens were accustomed to a major share of Canada's wealth. In the 70s Ontario had garnered approximately 40% of Canada's retail sales, export trade and G.N.P. But this success began to erode in the late 70s and early 80s as Ontario's annual rate of growth slipped to less than 3%, with some regions much lower. This placed Ontario behind many other provinces in terms of growth. Not surprisingly, this had a negative effect on investment and immigration.[1]

Newspaper headlines carried the message of the new reality regarding oil prices early in the 80s. Prices continued to climb and Ontario, a highly industrialized and mobile society, continued to suffer as a result of her need to import energy. The Government had already initiated the production of energy from alternative sources with an extensive commitment to nuclear power by building reactors in four locations across the province. There were protests by anti-nuclear groups over the construction and operation of these plants. But public opinion generally supported the government's decision. By 1990 electricity, generated by nuclear power, made up 15% of Ontario's energy requirements.

In 1983 the government had launched a major study on the cost and benefits of shifting to coal as a fuel to generate electricity. Despite improving technology for coal liquification and gasification, the report given to the government recommended against such a shift. It argued that the capital investment to mine and transport coal would be inordinately expensive.[2] Moreover, an intensive lobby had been organized by groups concerned about the environmental impact of acid rain. The problem was already severe, they argued, without adding massive amounts of carbon and sulphur dioxide to the atmosphere. They noted as well that industry had been slow to install scrubbers and other pollution control devices and the government's commitment to the enforcement of tough environmental standards had been poor.

The Opposition was very upset. The study, headed by a former cabinet minister, was criticized as a device to relieve the remaining doubts that people had about the nuclear option. That program, according to the Opposition, was the one the Government always had intended to pursue, and they only wanted to quiet the ongoing public concern by launching this study.

The major legislative thrusts were in the areas of energy from renewable resources, and conservation. Supported by federal legislation to regulate exhaust emissions from automobiles, extensive programs were developed to lower gasoline consumption. A combination of disincentives, such as taxes on high horsepower engines, and tax benefits for companies initiating fleet conversion programs, were introduced in the late 80s. Major municipalities introduced by-laws restricting core-area auto traffic. At the same time substantial money was invested, primarily by the province, to encourage the improvement of public transit. By the early 90s the GO system had been extended, and electrified, while light rail transit, and diesel and electric shuttle bus programs had been introduced in several municipalities. Inter-city bus and rail service, particularly in the Grand Trunk Corridor, was substantially improved in terms of speed, frequency and comfort of service. It was supported by computer-based ticket and reservation systems.

New planning priorities were encouraged. Weighted grants were given to municipalities that succeeded in increasing the population density within existing urban boundaries. This was an attempt to avoid further "sprawl" and, therefore, greater commuting distances between home and work. Tax incentives were also offered to light industry and service sector businesses which located in close proximity to residential areas. Neighbourhood protection was afforded, at least according to the Ministry of Environment, by newly instituted environmental impact assessment procedures.

Conservation was further encouraged by tax credit programs for upgrading home insulation, the conversion of oil furnaces to gas and electric systems, the conversion to fluorescent lighting, and the installation of active and passive solar systems. Federal and provincial funds were made available for research and development into solar, wind, and biomass energy. Ontario's goal of producing 25% of its energy from renewable sources by 1993 was not achieved. However, by 2000, the 15% level, 5% of which was solar power, was attained. The government itself, set a good example by converting all of their vehicles to propane, and by reducing mileage costs by the increased use of telecommunications. The private sector also funded research, converted oil-fired to coal-fired systems and, in some cases, even reactivated old, small-scale, hydroelectric sites.

Several trends dominated the work force during the 1980s and 1990s. While there was little increase in the overall population, the nature of the population was changing. As the people of Ontario "aged" there was a decrease in housing starts, a decrease in major appliance purchases, and an increase in leisure and recreational pursuits. Logically, these trends led to a steady increase in the number of jobs in the service sector, while the industrial sector declined, and the agricultural sector almost vanished in terms of job opportunities. Another factor contributing to the changing nature of Ontario's work force was the increased participation by women. These women were less desirous of having children, better educated, and more anxious to be in decision-making roles than any previous generation. Thus, at a time when job opportunities were dwindling, and when job market demands were shifting, an increasing number of people were seeking work. Indeed, at a time when the children of the "boom" were ready for promotion, there was intense competition not only from their peers, but also from their parents.[3]

The election of 1984 brought the issue of employment to the top of the political agenda. The opposition parties made scathing attacks on the high rate of unemployment and the Government's "apparent lack of concern for its citizens". They pointed to the textile industry which faced serious decline from foreign competition. Layoffs in the auto industry were another sign of the worrisome employment pattern in the industrial sector. This industry recovered somewhat as companies successfully retrieved a portion of the small fuel-efficient car market that had been lost to foreign manufacturers. But increased automation ensured that many of the workers layed-off in the early 80s did not return to the auto industry.

By 1990 employment had become a very "hot" political issue. The election that year is remembered as "the 20% election" because the N.D.P. focussed on the fact that Ontarians consumed only 20% of what they produced, and produced only 20% of what they consumed. They argued, that the economy needed to be managed so that production and consumption were more congruent. They advocated more jobs, and the improvement of the economy by selective stimulation of key industries. As well, they promised that their new government would encourage fuller cooperation between labour and management and end the bitter battles regarding the impact of technology that had plagued the 80s. Assembly line robots and automated office procedures had greatly reduced the number of people required to carry out many tasks. This also led to less person to person communication and less conviviality in the work environment, an important part of job satisfaction.

The promise of a guaranteed annual wage had widespread appeal and contributed directly to the election of a new minority government. The ironic aspect to this electoral victory was the success of the Liberals in drawing support from an increasingly vocal, small business community that wanted the government to do far less to regulate the economy. The pundits labelled this phenomenon the

"politics of polarization". Indeed, the long sought mid-point of the political spectrum, appeared to be riddled with quicksand for any politician seeking to stand firmly in the "centre".

During the 90s there were some encouraging signs regarding Ontario's economy. Strong growth was evident in the field of electronics. From manufacturing, to retailing to servicing, electronics was an area of phenomenal growth. The Canadian steel industry, centred in Ontario, was also enjoying world-wide success. Helped by the devalued dollar, Canadian steel was significantly cheaper than that produced in the United States. This competitive advantage, plus a shortage of steel in the world in the late 80s, provided the context for the expanded production and sales of the Canadian product.

There were also some new employment opportunities. Aerospace and aviation workers, industrial, mechanical, civil and electrical engineers were increasingly in demand. Companies needed middle managers for positions in accounting, production supervision, and office coordination. Job openings were increasingly available in such expanding fields as tourism, leisure and recreation. Trends toward shorter working hours, a shorter working week, staggered hours, and more expendable income continued to increase the demand for workers in those service sector jobs. An ever increasing elderly population also provided a large clientele for these services. This demographic trend also increased the demand for health services. Green collar jobs such as lab technicians, paramedics, radiologists, and nursing assistants became one of the fastest growing fields of employment.[4]

Notes

1. The statistics and trends on which these "forecasts" are based, are taken from a variety of sources including several reports published by the Ontario Economic Council; *Ontario: A Society in Transition*, 1972; *The Ontario Economy to 1987*, 1977. See also: "Economy: stalled in midair", *Maclean's* (June 9, 1980), pp. 38-42; "Ontario's heading into tough times." in *Toronto Star* (March 22, 1980), B1 and B5.
2. The comments regarding the problems and promises of shifting to coal are based on a presentation by F. Kneiman at the First Global Conference on the Future, July 20-24 1980, Toronto Ont.
3. J. Kettle, *The Big Generation* (Toronto, McClelland & Stewart, 1980).
4. "Jobs of the 80's: What to train for" in *Toronto Star* (Nov. 24, 1979), 35., "Here's where the jobs will be", in *Toronto Star* (June 14, 1980).

Technology: Costs and Benefits

There was a popular saying in the early 1980s: "Technology is the answer! But ... what is the question???" It was a bit pretentious, but at the time it seemed to galvanize opinion on the issue of the use and abuse of technology. Those favouring technology as a "solution" were in the majority, particularly among decision-makers, and they regarded those arguing for a more cautious approach somewhat paternalistically. They assumed that when the benefits of technology were more clearly demonstrated that opponents would see that there was nothing to fear. Technology meant things would be bigger, faster, and more efficient, the prime components of "progress". Those opposed argued that bigger was not necessarily better, and that the impact of technology on people and the environment had to be considered when balancing costs versus benefits.[1] It is fascinating to review the pattern that emerged through the 80s as this fundamental disagreement deepened and became politicized.

Transportation and related energy technology were areas of intense interest all through the 80s. Initial efforts focussed on the development of more fuel efficient cars, reduced speed limits, and campaigns urging tune-ups, car pools and the use of public transit. Research projects seeking to develop alternate fuels such as electricity, liquified propane, or gasahol received much public attention. By the late 1980s the major manufacturers all had electric cars on the market. But, despite gasoline at $.75 per litre, these vehicles were still viewed as a novelty and sales were not substantial.[2] Spurred on by the government's example of using propane in their vehicles, entrepreneurs marketed do-it-yourself conversion kits so that cars could use this alternate fuel.

Developments in the field of air travel brought technological problems along with the promises. Planes continued to fly faster and carry more passengers. However, transportation to and from airports in the major cities was so slow that the total door-to-door time on a trip from Toronto to Montreal was no faster than it had been twenty years earlier, despite a substantial decrease in flight time. Fuel costs continued to rise causing a steady increase in the cost of flights.

All of these problems produced a strong public demand for improved rail transportation particularly in Southern Ontario. Since significant improvements depended on massive capital investment in new rolling stock by the federal government, it was not until the mid 1990s that new services began to meet this demand. In addition a light rail transportation system was built to connect downtown Toronto with the expanded terminal facilities at Toronto International Airport.

Medical technology has taken on Huxlean proportions during the past two decades. Research into the structure of genes has made it possible to identify potential birth defects, while new tech-

niques to provide for corrective surgery have been pioneered. But these developments have raised fundamental questions of medical ethics, and human and religious values. Should we tamper with life? Should a defective child be born? Should an individual be able to decide these very questions, or must the state devise laws to "protect" society from enormous expenditures to care for those who cannot care for themselves?

Other unusual situations occurred and often ended up in a court of law, where the judge was faced with making a decision with regard to issues that never would have arisen, without major technological developments. Recently, a couple in the United States went for their compulsory medical examination prior to obtaining their marriage license. A computer search of their medical histories indicated that the girl's mother had been artificially inseminated with sperm donated to a hospital by the boy's father. The young lady told the court that the emotional impact and the social stigma she felt, as a result of learning that she was biologically related to her boyfriend, had led directly to a nervous breakdown, the loss of her job, and the break-up of her relationship. The court dismissed the case, but others will surely follow.[3]

There has also been ongoing research and development in the field of implants. The insertion of lenses following cataract operations, defibrulators to control irregular and potentially fatal heart rhythms, and the regeneration of bone tissue and ligament, by means of a temporary structural implant of natural and synthetic materials, have all ceased to be experimental procedures.

An ever increasing success rate with transplants led to controversy regarding who should have first claim on available organs. Hospital ethics committees tended to favour the young, but well organized senior citizen groups such as the O.W.L.S. (Older but Wiser and Lively Seniors) argued that this was discriminatory. They suggested the wisdom and experience of older citizens was a valuable resource that should not be thoughtlessly squandered.

Less controversial developments involved the increased use of computers for assistance in diagnosis, for suggestions for further testing, and for plausible prognosis based on alternative treatment patterns. Data banks were established containing the lists of locations of organs available for transplant, blood plasma and information concerning the cross-impact referencing of drugs to indicate possible toxic reactions. This information was made available on a wider and wider basis via computer terminals in drug stores and doctors' offices in the smaller towns and rural districts of Ontario. The use of paramedics, nurse-practitioners and midwives have all been assisted by the centralized computer storage of medical records.

The latter service was part of a broad movement toward the increased use of telecommunications throughout Ontario. Banks and many large businesses adopted electronic transfer systems thereby eliminating cash transactions. Home based, information retrieval services were available for the purchase of goods and services, making reservations for transportation, dinner or the theatre. As well, information about the weather, news, sporting events, the stock market, first aid, currency exchange rates and the nearest location to purchase a vintage wine, was continuously updated. The world-wide success of the Telidon system made Canada the leader in this field.

But there were "costs", both deliberate and incidental. Inadequate laws provided loopholes for computer theft of key financial data from business records by competing companies . More subtle crimes were the result of fraud and the manipulation of information. Individuals complained bitterly of the loss of privacy as a result of centralized information banks, and the broad range of access to these records. There have been a number of tragic stories of incorrect diagnosis in hospitals. Lost job opportunities, resulting from the compilation of inaccurate information regarding a person's personal or employment history, caused a strong backlash by angry people who demanded greater protection. Meanwhile, many citizens simply refused to give certain information as a way of fighting back. Sometimes even this tactic backfired as they were refused credit at a bank or store, or a reservation on a flight, as a result of their lack of compliance with government data-gathering procedures.[4]

These issues arising from technological developments, contributed to a lack of consensus in Ontario. Those less enthused with technology, tended to organize their protests around single issues. Thus, while specific groups were appeased on a particular issue, others remained angry that their complaints had not been addressed. This was one cause for a series of minority governments throughout the 90s, with the plurality shifting from one party to another at each election.

Notes

1. A useful summary of these two schools of thinking is presented in J. Bowman *et al; The Far Side of the Future* (Washington, World Future Society, 1978), pp. 6-19.
2. S. Olson, "Prospects for the Automobile: Sputtering Toward the Twenty-First Century" in *The Futurist* (February, 1980), pp. 27-34.
3. Instances of "technological" development giving rise to court cases for which no law is specifically relevant include a surrogate mother who sought custody of a child which she contracted to bear for another couple.
4. See H. J. Alder and D. A. Brusegard eds. "Crime and Justice" in *Perspectives Canada III*. (Ottawa: Supply and Services Canada, 1980), pp. 151-155.

Relationships, Religion, and Recreation

In the 80s and early 90s there was a significant decrease in person to person contact, a development that contributed to increased alienation and insecurity among Ontario citizens. There was less business travel as a result of advances in telecommunications. Conferences were held via satellite in which people thousands of miles apart shared ideas and made decisions without leaving their respective offices. Indeed, research conducted on teleconferences indicated that the quality of the decisions and the efficiency of the process was substantially higher than in face to face meetings.[1] Also, with mounting transportation costs, it was a more economic method of communication. This trend also influenced private life. As home computers became more popular, there was less and less private correspondence. By the mid 90s business moved from written to electronic communication for anything other than highly sensitive or confidential material. As a result, mail delivery was reduced to a twice a week schedule, and this mostly for those who did not have the technology to make use of the more efficient systems.

Perhaps the most noticeable trend regarding recreation and leisure was the increased interest in, and involvement with the Arts. Attendance at art galleries, libraries and theatres rose steadily. This was no doubt related to another trend, namely increased participation in both fine arts and folk arts. These, sometimes expensive, hobbies became so popular that people often established small businesses related to their hobby.

In contrast, the hiking and camping trends of the late 70s and early 80s levelled off, and then declined. No doubt an aging population, and smaller families played a part in this trend. But this was one of the clearer examples of the impact of the energy crisis, as people could no longer afford to drive fuel hungry recreational vehicles to distant campsites.

This increase in leisure activities did little to ameliorate the climate of suspicion and cynicism that developed. The government, the schools, the church, all had their share of critics and there was little consensus on solutions. One popular philosophy that emerged was "old fashioned" neoconservatism. This was a mixture of nostalgia and individualism amply supported by technology. Those accepting this view called for a return to family, patriotism and morality. They usually sent their children to a school operated by their church, shunning the "Godless" public school system. Yet the lifestyle sought by this segment of people could only be described as "tech chic". Many of them had highly sophisticated home security systems. Their taste included large cars, winter holidays in Florida, and summer homes in Muskoka. Many belonged to large evangelical churches who advocated love, but seemed to extend it only to those who agreed with them.

Others found a sense of belonging in quasi religious groups or cults which sprang up during the late 80s and 90s. Most presented a total answer to an individual's problem. Unfortunately, the "answer" often was very costly. Indeed, legislation was passed to protect people against the financial and psychological exploitation practiced by many of these groups which demanded absolute trust in the wisdom and virtue of their leader and total acceptance of a strict moral and social code laid down by the organization. They claimed not to be religious organizations but, in fact, they fulfilled a spiritual need in an age when many people were more interested in answers than questions.

Notes

1. These ideas are based on presentations by several speakers from the New Jersey Institute of Technology at The First Global Conference on the Future, July 20-24, 1980.

Education — Problems, Promises and Polarization

In the past twenty-five years no institution suffered stresses and strains as consistently as the educational system. People expected the schools to solve an ever-increasing number of society's problems but they wanted to spend an ever-decreasing amount of money to do so. The Ministry urged people to express their concerns at the local level, while the boards insisted the provincial authorities had to take the lead. Meanwhile, "society" complained that teachers no longer cared as much about their jobs or their students, while teachers suggested parents no longer cared as much about their home environments or their children. In this rather acrimonious atmosphere the Ministry of Education tried to establish policies that would have at least some appeal to the many groups insisting on varied and even conflicting changes.

Hindsight must judge the 1980s as a decade in which the system was maintained, with only modest modifications. The Secondary Education Review Project (SERP) chairman, D. Green, asked for and received an extended timeline from the re-elected government, reassured by its long sought majority. However "SERP" did issue a discussion paper in May 1981 which invited public reaction to the conclusions of the project's preliminary recommendations. There was a brief flurry of press debate regarding the proposed elimination of Grade 13, but on the whole, the discussion paper did not stir much public response. Within the educational community, while reaction papers were submitted, there was a good deal of cynicism regarding the sincerity of the request for input. Trustees and teachers stated that the inopportune time of year, and the short time span that was allowed strongly suggested that they had been invited to participate in a ritual dance rather than a reasoned dialogue.

When the final report was published it was generally well received. In fact, many of the "new" proposals had already been tried, and many changes would have occurred with or without the Review. But public confidence did increase in the wake of the publication of the report, and the Minister was quick to capitalize on this opportunity to introduce modest changes based on the recommendations of the commission.

Expanded and updated Technical and Business Education programs were at the centre of the changes suggested by the report. In his first major speech, the new Minister of Education announced the initiation of a two-year curriculum review process. This was a joint effort between advisory and review committees, made up of representatives from business and industry who provided input and constructive criticism, and a writing team of teachers, chosen from across the Province. This curriculum revision was tied to the gradual extension of the Linkage Program to all trades. This plan was given further impetus by tax relief programs that were made available to companies who participated in the apprenticeship plans. More and more boards of education launched work study programs, and provincial guidelines were published for lifeskill programs. They included units on work habits and attitudes, job search skills, interpersonal communications, career planning, personal time management, instalment and credit buying, banking, and legal responsibilities regarding automobile and home ownership. Two credits were made mandatory for students in work study programs.

At the local level there was a continued increase in the number of Community Industrial Training Committees throughout the province. These committees assisted in the development of local curricula, cooperative, and work experience programs. In some areas there was friction between teacher representatives and those from the business community, but generally these committees were effective. By the end of the decade regional education clusters were organized, consisting of representatives from the post-secondary institutions, the public, and separate boards of education. These councils met to coordinate efforts regarding the development of curriculum and the sharing of facilities and faculty. All of these local and regional groups were placed under the general supervision of the Regional Education and Employment Officer, appointed jointly by, and reporting to, the Ministries of Education and Labour. These officers were the key people in developing data banks containing information regarding careers, current and projected market demand in the field, and the names of education institutions and agencies offering training. Counsellors in secondary schools and colleges of applied arts and technology were able to obtain this information instantaneously for students via telephone hook-up with the regional data centre.

Always eager for an increased role in educational matters, the federal government offered to provide special funding to refurbish technical facilities in secondary schools. The need was indisputable as the equipment was twenty to twenty-five years old. But, provincial officials were very suspicious of the offer because of the ongoing struggle between Ottawa and the provincial government for control of education. The constitutional battle had not ended when patriation occurred. Rather there had been new efforts to realign powers, and education had been an area in which the Federal Government had sought more involvement, and increased visibility for its investment.

Another issue which was closely related to the constitutional debate, was bilingualism. Ontario consistently refused to move to a position of official bilingualism, but the federal charter of rights, which had successfully, if bitterly, been pushed through Parliament, led to several court cases. A Supreme Court judgement stated that a family had a constitutional right to a French language education. This decision led in turn to insistent calls for greater funding for French schools in many parts of Ontario. In addition, there was an obvious need for the expansion of the Heritage Language Program. The Government was particularly sensitive to these demands in the light of the substantial political power of ethnic groups, especially in Metropolitan Toronto.

It is noteworthy that once again the Government chose to continue to include Grade 13 as part of the secondary school system. Spurred by the SERP report, the philosophical wrangling within Cabinet had continued for six months before the recommendation for the elimination of the fifth year was rejected. Interestingly when the decision was announced financial rather than educational reasons were given to explain and justify the final judgement. In a decade dominated by economic pressures, eliminating Grade 13 was deemed too costly a change for parents having to pay for an extra year of university expenses, for the Ministry having to restructure its curriculum, and for the province, already plagued by disturbing unemployment rates for the 16-21 age group in Ontario.

Toward the end of the decade there were some significant changes within the teaching profession. The lowering of the retirement factor to 85 was the first step toward the infusion of some much needed young people into the profession.[1] In addition, a variety of teacher financed leave plans that had been negotiated in the late 70s and early 80s, were now in full operation. The combined effect of these developments eased the impact of declining enrolments on teaching positions. This, in turn, did much to temper the pessimism that threatened to run rampant throughout the profession in the early 80s. However, there was an alarming incidence of teacher "burn-out".[2] More and more veteran teachers succumbed to the ongoing stress caused by public criticism, and the ever-widening variety of roles society demanded of educators. The number of teachers, with ten or more years of ex-

perience, opting for new careers reached significant proportions. These changes in the composition of the teaching profession contributed to the emergence of an interesting dichotomy among educators. One group, predominately experienced teachers, held firm to the "unionist" views that had gained increasing popularity since the late 70s. But a substantial group, largely composed of younger teachers, began to articulate an alternative view. Accepting the label "Professional Wing", they sought to claim greater control for teachers in policy-making, curriculum design and teacher education.

In hindsight, the rise to power of several leaders of this group within both elementary and secondary teachers' organizations can be seen as a key factor hastening the introduction of the legislation to establish a College of Teachers. This step, long sought by the profession, had been promised as early as 1980 in the Ministry's response to the CODE Commission's recommendations.[3] The legislation gave teachers control over the rights of admission to the profession, certification, professional development, discipline, and dismissal. With this new mandate, the College insisted on changes in teacher training and retraining focusing particularly on additional training in pedagogical skills such as diagnostic evaluation, curriculum development, and the application of learning theory, particularly as it related to Basic Level programming. By 1990 these suggestions had been integrated into most teacher education programs which, at the undergraduate level, had also become more generalist in philosophy and more inter-disciplinary in presentation. In addition, the concept of internship was extended from it's previous pilot project status to that of mandatory implementation in 1990.

For experienced teachers a great emphasis was placed on professional upgrading. Teacher centres were established in various regions of the province where boards had decreased, eliminated, or perhaps never had extensive curriculum resources. These centres were meeting places, and well equipped work places for teachers to prepare learning materials and share ideas with their colleagues. Teachers were also offered retraining programs to help them increase the number of areas in which they were qualified to teach and thereby retain their seniority. Others were guided into alternative careers or alternative teaching experiences overseas, particularly in Third and Fourth World countries.

During the last three years of the 80s the first signs of disappointment and disruption appeared in the calm that accompanied the pattern of evolutionary change. The promise of technology had not manifested itself. Microcomputers, for example, had been used effectively in some schools by some teachers. But, like so many innovations, some teachers were fearful of this change and therefore avoided serious consideration of their use. The cost of both the hardware and the software also contributed to an uneven and limited pattern of use in the schools. But, at the same time that there was a limited application of this technology in the schools, it was having a significant impact on Ontario society. Both microcomputers and interactive television were found in many homes. Many parents used these new and powerful devices wisely as added means of educating their children. Commercially produced and well marketed software for microcomputers included "basics" packages for home instruction.[4] The new CBC II and O.E.C.A. networks presented increased cultural/educational programming, while cable companies offered interactive T.V. to their subscribers for a modest additional fee. Unfortunately, these developments undermined the goal of equal opportunity of education that the provincial government had emphasized throughout the decade as the new technology tended to widen the gap between upper middle class children, whose families could afford such technology in their home, and the children of poorer families, who could not.

But, perhaps the most emotionally charged debate of the 1980s concerned additional funds for special education, particularly for those students with emotional or physical disabilities. The special education legislation passed early in the 80s raised the hopes of frustrated parents. But when the funds to implement the new programs were not forthcoming, and the full enactment of the new regulations was delayed several times, very angry and vociferous parents' groups across the Province insisted that the remaining inequalities faced by students with special problems must be redressed. These inequalities were not lost on the opposition parties in the 1989 provincial election. Problems that had been downplayed for most of the decade now became major campaign issues. An improved special education program was advocated by the N.D.P. The Liberals promised action on the long-standing desire of Separate and Independent schools for increased tax support. While the Minister of Education branded this an "unholy" alliance, in the short run the groups cared much more about the financial matters on which they agreed than the philosophical issues on which they differed.

Two weeks after the start of the campaign, the Liberals found another issue to add to an already tense campaign. Early in the 80s, the Ministry of Education had launched the Ontario Assessment Instrument Pool (OAIP) with a great deal of fanfare. Over and over again, Ministry spokesmen stressed that the test items were to aid teachers in diagnosing students' problems and ensuring students' growth. Some educators worried about potential abuses of such a program but public sentiment was very supportive. Indeed, a majority of the population would have been happy to have the program extended as a basis for reinstating province-wide examinations. Once the program was in place, it ceased to spark controversy. There were some pilot projects, in various subject areas, to test the reliability and validity of test items. There were

periodic "feedback surveys" to test how widespread the use of the items was throughout Ontario. But, when the Liberal leader released the findings of a secret Ministry report, which he claimed proved that education in Ontario was "inequitable and inferior", the impact was immediate and devastating. The press and the public were outraged, not only at the details, but also that they had not been informed, and that the government seemingly had done nothing to correct the situation. The Liberals had already been advocating an educational system founded on "basic knowledge, skills and attitudes". This report, indicating substantial variation among student test scores on OAIP items, provided the Liberals with information they felt proved the accuracy of their criticism of education in Ontario. The substantial variation in scores among schools, and the overall decline in results over an eight-year period, were consistently highlighted in campaign literature and commercials.

It is difficult to assess the impact this development had on the election, but it was certainly an important factor. Teachers reacted angrily, but the momentum of the campaign could not be slowed. A Liberal minority government was elected seemingly with a mandate to change the educational system, and do so in a hurry. Once in power, however, their minority government status and the complexity of the issues made the Liberals less eager to pursue reform than they had been during the heat of the campaign. Initially, therefore, they chose to introduce changes in the university sector on the assumption that it was politically less risky than suggesting modifications in the elementary and secondary systems.

Despite a dismal record of financed aid to universities in the 80s under which Ontario never ranked higher than seventh regarding provincial grants, the Liberals had promised to tighten up even more. Thus, the percentage increase in grants in the 1990 budget was less than any year in previous decades. All universities immediately announced substantial tuition increases. This, in turn, gave rise to protest demonstrations reminiscent of the 1960s in their fervour. Students and university administrators joined in their opposition to new limitations on funds for postgraduate programs, at particular universities. In an attempt to streamline and maximize program opportunities while reducing the cost, certain programs were to be restricted to designated schools. In the long run, most agreed that this plan would ensure that more graduate programs would survive, and that the smaller universities would be protected. The process used to initiate this was very heavy-handed however, and that angered many people. The government hoped that the wide spectrum of voters would generally agree with the policies and ignore the procedure. To the dismay of university officials, the government's judgement proved correct.

Later in the decade, with the N.D.P. forming a minority government, there was some moderation of these trends. Funding was increased, but health care continued to receive a higher priority. This administration did move decisively in one area of post-secondary education. They instituted an independent university council, composed of academics and laymen, with authority over planning and coordinating the orderly development of the post-secondary sector. This idea, first supported by the Wright Commission, had never been acted upon as a result of opposition from the universities. They felt that such a body infringed upon their academic freedom. However, the first major planning initiative of the council sparked only scattered opposition. After a year of negotiation, Laurentian University and Cambrian College agreed to a merger which resulted in the establishment of the Polytechnical Institute of Northern Ontario, (Northern Tech), a degree granting school similar to Ryerson, but with a program emphasis attuned to Northern Ontario's economic, social and technological needs.

Another change that passed the legislature was in the field of education taxation. The population was aging and therefore, more and more property owners no longer had children in the public schools. Meanwhile, more and more young families were choosing, or were forced by economic circumstances, to live in rented accommodation and, therefore, were not directly subject to property taxation. Thus, many Ontario property owners felt that they were being taxed unfairly, and eagerly supported the New Democratic decision to introduce a bill establishing income as the basis of educational taxation. This followed an earlier decision by the Liberals to extend grants to separate schools until the end of Grade Twelve. There was some hesitance in taking this step in the face of a massive public campaign opposing such a change. Some of the debate was quite bitter, as fundamentalist groups, themselves seeking financial support for their own schools from the government, accused the Liberals of being "under the control of Rome". When this was a campaign issue they had been rather supportive but now, fearing the government was not going to grant their own desires, they opposed concessions for anyone.

During the 90s there was sufficient disagreement over any major changes in education, that none of the various minority administrations wanted to risk defeat at the polls by introducing any controversial changes. The Liberals favoured a curriculum of compulsory basics — English, Mathematics, Science, History and Physical Education — plus a few optional subjects. Technical and Business Education were to be taken out of the secondary school curriculum and offered at community colleges or "on-the-job". The Liberal education policy also advocated a province-wide testing program to ensure uniform standards. They suggested that these tests should be given at the end of Grade 3, 8, and 10, with the results to determine whether or not the student could continue toward a post-secondary education. The only way a student who "failed" could proceed to further

formal education, was to earn "alternative entry credits" through sanctioned on-the-job training, or a private educational program.

A more controversial issue was the Liberal proposal to establish tuition fees for education above a guaranteed minimum of ten years. Several individual members also suggested an annual education deposit which would be retained for poor academic performance, and/or any damage done to school property. They argued that if the full deposit was forfeited, the student would have to withdraw from school, and could not return until a full tuition fee was paid, or sufficient credit gained in a private educational program to earn readmission. Similar programs had been initiated in the United States during the 80s.

The New Democrats, in contrast, advocated a more decentralized system, and a career-oriented curricular emphasis. The introduction of an educational voucher system was a key concept in their plan, which they pledged would be immediately implemented, at least in the major metropolitan centres, if they formed the next government. They argued that individuals should be issued an educational voucher upon registration of birth. The voucher could be used to "buy" educational opportunities in the community. A percentage of these opportunities had to be used on day care and/or nursery school prior to entering the formal school system at age five. After starting school, there was a minimum that had to be "spent" in publicly supported schools. However, beyond these minimums, the voucher could be used for attendance at a private school, at community sponsored programs, for computer time, or for diagnostic and remedial services.

Regarding curriculum at the secondary school level, in addition to an academic program leading to university entrance, the N.D.P. suggested an alternative "stream" composed of applied Mathematics, Science, and English, plus business, technical, or general vocational options. In Year Two of secondary school, students would be given a standardized battery of general interest and aptitude tests. Thus, interest and ability could be correlated with employment opportunities in each of five economic regions which they promised to delineate. With this information, students could then apply for a particular program at the Senior Division level. Acceptance into these programs brought with it a minimum employment guarantee in the form of an employment voucher. An employer agreed to hire a particular student upon graduation. In return, the employer was guaranteed an employment voucher which could be redeemed for government funds. In order to obtain the maximum funding, certain factors were considered. These included the amount of time the employee had worked for the company, the type of work assigned to the employee, and the region in which the company was located. The value of the voucher could be increased if further training was provided by the company or by a contractual agreement between the company and an educational institution. No legislative action has been taken on any of these proposals.

The certification and monitoring of the teaching profession was another area in which proposals were made, but no final decisions were reached in the 90s. The Liberals recommended that the College of Teachers established in the 1980s should be eliminated or at least severely restricted in its powers. They also advocated that teachers should not have the right to strike and even introduced a bill which would have brought this into effect. After first reading however, it was withdrawn for reconsideration.

Notes

1. This step had been recommended by *The Commission on Declining Enrolments*, 1978. It was supported on numerous occasions by the various teacher organizations, and by the Ministry of Education — see footnote 3.
2. "Help! Teacher Can't Teach", in *Time* (June 16, 1980), pp. 52-60.
3. Issues and Directions: The Response to the Final Report of the Commission on Declining School Enrolments in Ontario. Toronto: June 1980. p. 40.
4. "Microelectronics impact more evolutionary than Revolutionary" in *Globe and Mail* (March 17, 1980) p. 35.
5. Analysis of the problems of and future prospects for financed support for universities was highlighted by the preliminary report of the Provincial Government's council which was appointed to study the future of the university system in Ontario.

The New Century

At the turn of the century, there was an overwhelming desire for a resolution to the polarization and immobilization that had plagued Ontario during the 1990s. The Conservatives anxiously awaited an election because they felt confident that they could refashion their old moderate coalition, and return to power. The teachers were already backing away from their short-lived endorsement of the N.D.P. in favour of a policy of supporting candidates and programs rather than parties. Among the general population, according to several opinion polls, people were willing to accept increases in the cost of education, especially for students ages three to sixteen. There also was less criticism of the standards of education, despite the growth, in the last five years, of a great number of educational entrepreneurs offering various services, from nursery school to college preparation. These franchised "packaged" programs, promised money-back guarantees if students were not satisfied, or

did not gain entrance to a program for which they were being "prepared". Studies showed, that the motivating factor behind most enrolments in such programs, was the incredible competition among those seeking admission to the professional schools with their strictly enforced quotas.

Universities after being forced to cooperate during the 90s by the new supervising council, now were allowed to compete in the areas of community outreach and continuing education. Regarding the former, field-based research gained wide acceptance as an appropriate context for post-graduate work. For example, Ecological Studies Programs have been established, in cooperation with municipalities, in order to identify needs, and then to design and implement action plans. These programs allowed the students to gain valuable, on-site, experience and a data base for study, the community to have access to the expertise of the university's faculty and the energy of the students, and the university to earn credibility within the community and funds from the provincial government. There was also an increase in research funds, particularly from the federal government. Mind research continued to fascinate investigators and new break-throughs were heralded in "right-brain" strategies and methodologies for teaching reading and mathematical skills. The use of synthetic hormones on an experimental basis suggested real hope for the control, and even correction, of learning disorders and emotional disturbances, especially among ten to fifteen year olds. Much of this work has been the extension of studies done in the late 70s and early 80s, but neglected during the retrenchment of the next decade.

But the best hope for the future arose from the renewal of optimism among parents and educators. Much of the blind criticism of the system ceased. Indeed, there was evidence of an emerging belief that while the educational system should be responsive to the needs of Ontario citizens, it should be expected to solve fewer societal ills. Indeed,it appeared that less stressful teachers faced a less cynical populace. The strong and frightening tide of anti-intellectualism so prevalent in the 1990s had abated.

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EDUCATION OPPORTUNITIES IN ONTARIO 1980 - 2005: A MODERATELY OPTIMISTIC SCENARIO

by Hugh A. Stevenson

Canada: 1980 - 2005

In 1980 Canadians knew too much about issues of the moment and not enough about their prospects in the future. Most Canadians were very contented, as a general rule,[1] in spite of the serious domestic futures issues which preoccupied the media. They included the constitutional debate, the supply and control of energy resources and the federal government's struggle to survive, maintaining its position as the central unifying force within the nation.

Others that thoughtful citizens could add to the list of contemporary domestic problems might be: our relations with the United States; regionalism and various federal-provincial squabbles; the aging population; economic instability; inflation; chronic unemployment; poor industrial productivity, weak inventive capacity and a poor ability to be competitive in the market place; an increasing shortage of skilled workers despite one of the most elaborate and expensive school systems in the world; pollution; labour unrest; defense costs; social and professional services we enjoy but may not be able to afford; high taxes and a great many others.

Vocal concern for national identity or "Canadianism", and U.S. ownership of industry appeared to subside with the 1970s; very few Canadians perceived good reasons to give more serious thought than usual to the country's place in the world. Almost none considered Canada's future in relation to projected global difficulties. It would have been very difficult for large numbers of people to do so in any event. Reliable information and specific thematic projections were not readily available either to stimulate and inform public opinion or to contribute to the more difficult task of developing acceptable political policies.[2] Canadians did have an abundance of rather dated demographic data and future projections based on it.

This brief discussion is not included to be unduly critical of Canadians in 1980. On the contrary, it illustrates realistically not only some of the nation's weaknesses but also many of its strengths by comparison to conditions elsewhere in the world. In this framework, Canadians behaved much like their counterparts in Western Europe and the United States. They were a relatively wealthy, secure and comfortable people, preoccupied too heavily with internal issues, not sufficiently concerned with the imminent dangers inherent in the complex world that surrounded them.

For a short time these rather normal, if ill-advised, preoccupations continued. After the middle of the 1980s, however, the dominant themes in Canadian life shifted to new foundations and directions with much more promise for the future. By 2005 Canadians had created a society capable of world leadership, one prepared to compete successfully and contribute to the world of the twenty-first century. The condition of the world was no less threatening by this time; in some respects its ominous aspects were more intimidating. Internally, however, the nation had developed the essential elements of a new stability; the people and their leaders better understood the need to alter rapacious twentieth century life-styles to more moderate, intelligent paradigms. By 2005 in many parts of the country, notably in Ontario, Québec and some areas of Atlantic Canada, the people had already demonstrated their capacity to do so.

Within five years of 1980 national and provincial politics showed more promise of sensible leadership. The constitution was repatriated in 1982, an adequate amending formula and bill of rights were put in place shortly thereafter; and, within several years the document was rewritten entirely. Ownership of natural resources was shared by the federal government and each province, as were the costs of essential social welfare services with an equalization formula entrenched to protect poorer regions. Both federal and provincial politicians gradually demonstrated a new level of statesmanship which provided the nation with the kind of leadership it needed to cope with extremely difficult times. More and more frequently outmoded partisan boundaries were crossed in the national interest; selfish displays of divisive power by oil-rich Alberta proved to be as short-lived as did the immediacy of the oil crisis itself.

Historical regional biases, of course, did not disappear completely in such a brief period and for a short time it looked like the west was isolated dangerously, making the new constitutional federation unduly fragile. Ironically, world conditions in the latter half of the 1980s intervened along with many elements of Herman Kahn's technocratic thinking to indicate to both politicians and the public all across the country that much more was to be gained for everyone by cooperation than selfish, short-sighted sectional strife.[3]

Old federal-provincial political party lines never recovered completely, politicians finally learned the value of respecting the intelligence of voters in unique ways. They had to clearly demonstrate their capacity for intelligent, informed, imaginative leadership to secure election with astonishing results that revived much sagging faith in the democratic process. The level of public debate rose steadily in a new comprehension of the interrelationships between domestic and international issues. Not surprisingly, government action

and activities in the private sector followed suit to achieve unprecedented heights of public efficiency and better than moderate economic success.

Throughout the 80s the economy remained much the same — heavy federal spending, familiar patterns of taxation, high inflation and similar fluctuating interest rates. Growth remained a dominant theme in many business circles but little occurred in real terms. Gradually, however, the energy crisis faded as the country moved closer to a state of controlled self sufficiency.

Commercialization of Newfoundland's off-shore oil, new discoveries there, completion of the eastern link of the trans-Canada oil and gas pipelines, and continued development of nuclear generating capacity brought a measure of economic assistance and, more important, security. Other energy sources such as coal, more energy-efficient methods of transportation and conservation measures continued to be explored in a sustained emphasis on research, development and application. This was particularly true for domestic household markets, commercial and commuter movement of goods and people. By 1987 Canadians paid world prices for their own oil but within the next five years the need for any overseas imports stopped. Thereafter, only Mexican oil which Canadian technology had helped develop in fields that proved to be much larger than anyone thought constituted the source of foreign imports. Full development of the tar sands and Arctic resources were not scheduled for completion until the first decade of the twenty-first century.[4]

Throughout the 1980s Canada moved perceptibly and consciously closer to a northern version of post-industrialism. Industrial and commercial practices, with government assistance, shifted to higher technology, less labour intensive methods and more effective competitive practices in international markets. The time was used to modernize plants, production and products to gain a more substantial margin of success in the 1990s and the next century. Service occupations grew with predicted rapidity and changed their shape until governments introduced sensible regulations. In particular, Canada maintained its 1980 world leadership in the high technology of the information-communications-computer industry. That achievement combined with stabilization of energy resources, equal success in agricultural production, tourism and transportation to meet new world demands laid the foundation for the nation's continued prosperity.

The period between 1980 and 2005 saw neither an economic boom nor a return to capitalism's penchant for unlicensed growth with little regard for environmental wastage. But living standards remained high as a hopeful element of common sense slowly but perceptibly began to take hold in the public and private affairs of the state. Reshaping the commercial and industrial base of the economy, a new respect for conservation and ecologically-sound practices, heavy investments to sustain social services, pensions, health care, and education placed responsible obligations on citizen beneficiaries. They could not be fulfilled without personal costs to taxpayers. In many sectors, for example, labour management relations, the 80s brought difficult times. Gradually, however, unemployment and dislocation crises for employees came to be understood in other than nineteenth century terms. During the late 1980s Canadians' understanding of the work ethic, personal and family relationships, leisure, education, retirement — many aspects of traditional life expectations — matured and changed significantly.

No miracle took place. The important changes in Canadian life were achieved by imaginative work, thoughtful leadership and courage on the part of a well-educated population. Neither did a mindless, depersonalized technocracy emerge nor did small become beautiful entirely in Canada's adjustment to a post-industrial society. Imaginative policies for careful development, sensible behaviour utilizing available resources of all kinds and moderation proved to be extremely successful. The task, of course, represented an immense challenge and an even greater accomplishment. It was achieved with considerable difficulty, the application of ordinary values and a spirit of watchful intelligence directed at worsening world conditions.

Canadians read their place and moment in history correctly, in sufficient time to react appropriately. The nation realized it could not escape the long-term effects of global deterioration; the bleak futures to be expected from continued inaction were made clear for all to see. By the end of the 1980s Canada had developed the most effective monitoring system for domestic and international information operating in the world. Throughout the next decade Canadians not only reshaped their social order but also the economy had been kept stable relative to escalating world chaos. Not to have done so would have condemned the nation to a future of political instability, widespread sociocultural decline, eroded living standards, a life of insecurity and personal wretchedness for most citizens in the twenty-first century.

By examining developments in one of the provinces, Ontario, highlights of the general transition can be seen more clearly.

Notes

1. See: H.J. Alder and D.A. Brusegard eds. "Public Perceptions on the Quality of Life," in *Perspectives Canada III*. (Ottawa: Supply and Services Canada, 1980), pp. 275-292 and "Vignettes of Canada and the United States," pp. 293-306 for interesting comparisons of the two societies. See also: David W. Livingstone *et. al. Public Attitudes Toward Education in Ontario*. (2nd Annual Survey) (Toronto: Ontario Institute for Studies in Education, 1980).

2. In addition to Drouin and Bruce-Briggs *Canada HAS A Future*. (1978) several general books on Canada's future are available but none is entirely satisfactory or very well-known. They include: Walter Baker ed. *Shaping the Future: Canada in a Global Society*. (Ottawa: Centre for Policy and Management Studies Inc., 1979); Gerald B. McCready, *Profile Canada: Social and Economic Projections*. (Georgetown, Ontario: Irwin-Dorsey Limited, 1977); Leroy O. Stone *et. al. Canadian Population Trends and Public Policy Through the 1980's*. (Montreal: Institute for Research on Public Policy, 1977) and, in a more specialized vein, Z. Zsigmond *et. al. Out of School — Into the Labour Force: Trends and Prospects for Enrolment, School Leavers and the Labour Force in Canada — the 1960's Through the 1980's*. (Ottawa: Statistics Canada, August 1978). *Perspectives Canada III*. (1980) is mistitled in that it contains few, if any, projections; it is more correctly an historical compilation of statistics. The Canadian literature on the future, however, is significantly richer on specific rather than general, comprehensive studies. See: Hugh A. Stevenson comp. *Public Policy and Futures Bibliography: A Select List of Canadian, American, and Other Book-Length Materials, 1970 to 1980, Including Highly Selected Works Published Between 1949 and 1969*. (Toronto: Ministry of Education, Ontario, 1980).

3. For a thoughtful scenario on various regional configurations see: Victor Ferkiss, "The Future of North America" in *The Futurist*. Vol. XIV No. 4 (August 1980), pp. 17-24.

4. See: Thomas Kennedy, "Hibernia Production Test Yields Encouraging Results," *The Globe and Mail*. (December 19, 1979), p. B1.; "Hibernia Oil Find Canada's Largest, Gulf Reveals," *The Globe and Mail*. (August 28, 1980), p. 1 and seven articles on "Energy Self-Sufficiency," a special section in *Canadian Public Policy*. Vol. VI No. 3 (Summer 1980), pp. 430-488. The same issue contains another useful section on "Québec Options."

Ontario. 1980 - 2005

Early in the 80s, by introducing a series of bold, carefully conceived policies, the Ontario Conservative government set in motion a truly ingenious strategic planning process. It led the province into the next century as the best place in the world for all aspects of human life in harmony with the natural environment and all other settlements on earth. The Conservative Party undertook the responsibility for "orchestrating" the essential "coherent transition from today to tomorrow". Fundamental problems were identified and solutions undertaken without delay and "without riots, revolutions or dictatorships" postulated by Leon Katz in the preceding section entitled "Global Considerations". The massive task captured the public's imagination reviving an exciting momentum of enthusiasm for the benefits of life in Ontario built on sensible planning and practical accomplishments for a hopeful future. The history of Ontario between 1980 and 2005 stands out as a model which demonstrates how imaginative leadership and careful planning, with the public and private sectors cooperating fully, provided a highly successful formula for turning a bleak future into one characterized by relatively moderate prosperity and advanced social achievements.

As one might expect the process was not accomplished easily. The pros and cons had to be weighed carefully but they were not as speculative and risky as traditional political wisdom indicated initially. Certainly the prospect of such a large-scale transformation in public values seemed unrealistic to those who had experienced the false excitment of the 60s and the lack-lustre socio-economic backsliding of the 70s. When, except wartime, had a Canadian electorate ever been willing to pay a heavy price for investing in the future? Of course, the counter-arguments had equal appeal in 1980. When, except wartime, had the risks ever been so great for Canada and Ontario if politicians and the public continued to ignore the implications and the relative imminence of global disaster? The most telling argument in favour of such untested approaches to political action suggested that, in the circumstances, it was the only publicly responsible course to adopt.

With remarkably clear insight the Throne Speech of March 1980 correctly outlined the dimensions of global and Ontario prospects; more importantly it recognized in general terms that the province, within a strong Canadian constitutional framework, "must ... take the courageous decisions necessary now to preserve ... [the] overwhelming opportunity for all our people."[1] It set the tone and the rapid pace of the public and political agenda necessary for the next decade and beyond. During the election of 1981, which returned the Conservative Party to a strong majority position in the Legislature, more specific initiatives were built into the platform and future mandate of the government.

1. Energy self-sufficiency by the end of the century and gradual acceptance of world-level prices. Support for research and implementation of energy alternatives and conservation measures.

2. Economic self-reliance in cooperation with other Canadian provinces under the new federal constitution, new efforts to develop foreign markets and incentives to be more competitive.

3. Improvement of Ontario's agricultural productivity, development of energy-efficient public and private transportation

and investigation of measures to expand the tourist industry.

4. Extensive support for the communications-electronics industry particularly for development of fiber optics, holography, micro-electronics, computer chips and digital technology. Advocacy of rapid adjustment to communications satelites and standardized micro-processors.

5. Extensive support for health care and education not only to protect the public's investment in these services but also to allow them to develop their full potential to contribute to the quality of life enjoyed by all citizens in Ontario. A public system of early childhood education would be initiated employing young teachers in surplus school space.

As well, the party adopted a new stance of vitality, imagination and risk-taking based on careful planning, new degrees of cooperation with Ottawa and several provincial governments, notably Québec and the Maritimes, that not only captured but also sustained public confidence. Opposition parties were caught napping and could not catch up politically. The complex private sector, including labour and professional unions, had no good reasons not to cooperate fully with the new government platform. The price of these programs and expectations of only moderate wage-benefit increases in the short-term future were accepted widely and with reasonably good grace. All came to be regarded as a necessary expense to protect the tattered credibility of many institutions and organizations; an essential shift in priorities to safeguard the generally high-standard of living in Ontario by comparison to many other jurisdictions, while bringing the province back to life economically. In the long run the public costs would be justified as a necessary investment in the future and repaid throughout a sustained era of prosperity.

Soon after their 1981 electoral victory the government made operational extensive efforts to develop longer-range provincial plans with more appropriate implementation and updating mechanisms built into them. Government ministries, the budget cycle, the Cabinet and civil service were reorganized with a clear emphasis on longer-term perspectives away from exclusively meeting crises of the moment and the shackles to intelligent planning imposed by the concept of a single-year fiscal cycle. Also, as time went on, elements of the new Ontario-Québec-Atlantic Canada alliance worked to limit unwelcome U.S. intrusions into Canadian affairs. No one froze in the dark and living with the southern giant continued along competitive but friendly lines. Often Canadian interests were placed first to assure the future of the country over the sectional, divisive claims of some other provinces. Twenty-first century historians later would interpret the years between 1981 and 1986 as an extremely important pivotal period for Ontario.

Immediately after the 1981 election the first priority came to be the development of Ontario's own capacity to generate and interpret reliable, regularly updated, information regarding the future; a wide spectrum of local, national and international intelligence as an indispensable basis for policy. Like Canada, the province of Ontario lacked sufficient information to guide future insights. Much of what was available had been developed without adequate coordination and left to date without re-evaluation. Ontario shared all of Canada's problems in addition to her own and risked the same policy blunders for lack of information. Not all future works were dated but the majority warranted the criticism. In some instances too much material seemed available; in other cases too little could be found; in all cases, the potential impact of external events affecting forecasts could not be brought to bear with more assurance than "seat-of-the-pants" judgment-calls could provide.

Fortunately, without becoming Orwellian about it, the province possessed the financial and intellectual resources to correct these deficiencies allaying public fears before they became widespread or developed their potential to become epidemic and undermine political loyalties. The basis for policy shifted in this brief period to reliance more on concrete data and related forecasts of alternatives, away from faith in politically motivated public opinion polls and cracker-barrel intuitions to guide policy.

The second essential priority proved to be much more complex, time consuming and difficult. Several, interrelated value shifts needed to be better understood before problems of the 80s could be dealt with effectively and before the successful longer-range transition could be made to objectives set for the 1990s to 2005. Even the broad objectives could not be identified clearly and convincingly. Very little was known about the fundamental relationships between the work ethic, education, multi-cultural values and aspirations, the class structure and all the other complex aspects of changing values to maintain acceptable life-standards and styles.

The impetus for action came circuitously from some academic work on the failure of American community colleges, the false promises of the career education movement as well as criticisms of the dangerous consequences of U.S. liberal reform, equal opportunity and belief in class mobility for all because of the triumvirate of public education, ambition and capitalism.[2] In particular, work and its connection to the economy and individual life aspirations began to fail in the traditional understanding of the relationship. In Canada the implications of the phenomenon and the exploration of positive alternatives for the future were being ignored, giving rise to perilous consequences.

Within Ontario the subject had not been thought about much or seriously investigated for a decade. Nearly everyone, especially politicians, business

leaders and many educators, had heaved a huge sigh of relief and quietly forgot about the recommendations of *The Learning Society* (Wright Commission, 1972) and *Training for Ontario's Future* (Dymond Commission, 1973) as soon as they reported. However, the Ontario government recognized the dilemma late in 1981 by setting in motion an extensive study designed to report very quickly so the results of the investigation might be applied without delay to policy in this decade. Within a few years, applications were being made in education and some industries.

Between 1981 and 1986 Ontario fortunately made the key adjustments that were required to provide for a stable future to 2005 that fed grist to the political historian's mills fifty years later. More had been accomplished too. A new level of political integrity and openness began to develop relieving a long tradition of public suspiciousness. Public confidence remained high in the sensible policies of the Conservative Party focused squarely on the immediate and long-range best interests of the people. In particular, their efforts to serve the needs of various age-levels were largely responsible for their continued electoral success.

Young voters were attracted to long-range considerations in provincial policy, efforts to revive or at least sustain the economy, to provide educational opportunities, to keep Canada united and to explore new implications for work in post-industrial circumstances. The business, industrial, labour and financial communities shared some of these interests and for various different reasons appreciated the government's openness and pragmatism in public affairs. Middle-aged Ontarians rallied to signs of hopefulness and respected the need to scale-down personal aspirations for a sustained future, secure pensions and an orderly society. Much attention was paid to retaining peace and good order in both urban and rural settings. Older Ontarians remained steadfast to the party that continued to assure them of excellent health care and secure their pensions at reasonable levels.

The proof of success came in the provincial election of 1986 where the Conservatives won another clear majority even though they had advocated more time to implement complex long-term policies. Also, they had forecast honestly no reduction in either taxes or inflation. The opposition parties wailed forecasts of woe but failed to demonstrate any genuine weakening in the democratic process. And, they could not prove public irresponsibility although they complained a good deal about it without convincing the electorate. Ontario had accomplished the first and most difficult of the adjustments necessary for future stability with remarkable success, led by the Conservatives who recognized and appreciated the intelligence of the public they served. Some of the other changes that came later were easy by comparison to those of the early 1980s.

In 1989, Robertson Davies could not write of the preceding decade as he did in 1979: "Canada is not a country that sets trends; it responds and interprets influences that come from outside."[3]

Relative energy self-sufficiency based on nuclear power, natural gas, some use of hydrogen and solar systems, extensive conservation measures and wide-scale acceptance of electric automobiles was achieved early in the 90s. By then, too, general prosperity had returned to the labour force, although essential public expenditures and wage settlements kept inflation levels abnormally high by North American standards. Throughout the 80s these occurrences were preceded by gradual but significant improvements in agriculture, rapid public transportation, tourism and the communications industry. In the latter area, Ontario captured 60 percent of the global market, an achievement made possible by Northern Telecom's research capacity and extensive government support early in the decade. Ontario's position as a world leader in information technology brought new vitality to the economy. Combined with all of the province's other rich material and human resources, the communications industry gave Ontario a sounder financial foundation than Alberta had discovered in its oil resources. Ontario's strengths and wealth were renewable in most respects. These basic events were either well-developed or firmly in place by 1989. They remained for the next fifteen years as the backbone of Ontario prosperity; hungry international markets found many of their needs could be met by shopping and vacationing north of the Great Lakes and along the St. Lawrence Valley.

Ontario's advanced position in technology made its general application possible in private homes, schools, industries and businesses with startling impact on the work ethic and related social values. The family unit remained intact with all adult members working shorter, more varied hours; throughout one's working-life several occupations became the norm. In many cases the home became the work place, a transformation made possible by electronic technology which also contributed to conservation. Work remained as a central social value but its nature and character changed sufficiently that its counterpart — leisure and/or retirement — also changed radically.

In the twenty-first century Ontarians could look forward to even greater variety in the old stereotyped birth, education, work, retirement and death cycle of human existence, enriching all aspects of the experience. While world prospects had not improved perceptibly over 1995 levels, Ontario had surpassed expectations of the early 80s. Many other parts of Canada, in particular Québec, fared almost as well. Some of the earliest and most remarkable renovations could be seen in the public educational sector. There long-established, extensive provincial controls interacted so closely with personal and public interests, amid an atmosphere of difficult financial constraints and in such an ill-defined way with economic prospects, that unique

difficulties had to be overcome. The details of what needed to be changed in 1980 and the record of what was done in the 1980s and 1990s provide further insights, explaining how Ontario provided a good future for its citizens of all ages well into the twenty-first century.

Notes

1. "Speech from the Throne: Address of The Honourable Pauline M. McGibbon, Lieutenant Governor of the Province of Ontario On the Opening of the Fourth Session of the Thirty-First Parliament of the Province of Ontario, March 11, 1980," p. 32.
2. Fred L. Pincus, "The False Promises of Community Colleges: Class Conflict and Vocational Education" in *Harvard Educational Review*. Vol. 50 No. 3 (August 1980), pp. 332-361 and W. Norton Grubb and Marvin Lazerson, "Children, the State, and the Limits of Liberalism — *Small Futures* ... by Richard H. de Lone for the Carnegie Council on Children (New York: Harcourt Brace Jovanovich, 1979), 258 pp. in *Ibid*., pp. 407-414.
3. Robertson Davies, "Past Imperfect, Future Tense" in "The Seventies: Perspectives on a Decade," *The Globe and Mail*. (December 18, 1979), p. The Seventies 1.

Ontario Education: 1980 - 2005

Late in 1980 there were few indications of the revived high political priority and rejuvenated public interest that were about to revitalize Ontario education. The various sectors of the Ontario education system and the loosely-divided Ministries of Education/Colleges and Universities all carried on their affairs pretty much as they had been doing throughout the latter half of the 1970s. During the election early in 1981, sectors of the educational community made legitimate complaints about underfunding, the implications of implementing the new special education legislation and so on but there was no indication that the public or any party wanted to make public education a real issue during the campaign. In this sector the Conservative government, returned to power with a comfortable majority, had been smiled on generously by Lady Luck.

Had the timing and general circumstances in Ontario been marginally different prior to the election, education could have become an explosive issue jeopardizing the results. Experienced politicians and senior civil servants knew this to be true; they also knew that education within the province had to receive a much higher priority in Cabinet planning if Ontario was to have any real hope of coping successfully with the transition to post-industrialism amid a period of deteriorating global conditions over the next 25 years. In the spring of 1981 no one had found a practical way through the maze of educational problems of the moment let alone those of the future. Behind the scenes, however, there was a growing consensus that without a major revitalization of education at all levels there could be no truly satisfactory socio-economic adjustments accomplished in the same period. Ontario found itself wedged firmly between the cliched rock and a hard place. And, early in 1981, the odds of escaping the grip of this kind of vice with ingenious public policies seemed very long indeed.

Education was besieged by internal doubts and external criticism that had been growing for five or six years. Despite ongoing, traditional efforts to make improvements and adjustments in the system, professional and public confidence showed escalating signs of serious demoralization rather than confidence and determination to resolve significant difficulties. For example, few educators looked forward with enthusiasm to implementing either Bill 82 or the recommendations in the final report of the Secondary Education Review Project. While no one objected seriously to the general thrust of these educational revisions it was very difficult to see how they could be accomplished successfully. The first was being rushed without adequate provisions for its implementation; the second was not only rushed and unimaginative but also showed clear evidence of insufficient preliminary work to have much hope of a clear passage through implementation.

On the post-secondary scene similar doubts greeted the compromise report of The Committee on the Future Role of Universities in Ontario and the results of task forces on in-service education and the impact of technology. Many felt that the title of the Council of Ontario Universities 1981 report, *A Future of Lost Opportunities*, reflected more accurately the fate of education in the province. A future based on the general policy of accomplishing more with less could not produce even marginally satisfactory results in contemporary circumstances. There seemed, however, to be little prospect among educators that politicians would recognize the difficulty and react in time to prevent serious damage to Ontario's educational system and the society's prospects.

Of course, there were no signs that the public could care less. They were certainly critical and very vocal, particularly for special causes; in general, they seemed to demand more for less cost and unreasonable proof of results and guarantees that neither educators nor politicians could provide. Reactions within the business community were better informed but similar in the depth of their disillusionment with the services of public education and the inability of the system to meet their rapidly changing needs for highly educated employees. It was hardly surprising that more and more commercial enterprises instituted their own in-house training systems, a trend which clearly

signaled a serious challenge to many sectors of institutionalized public education. Finally, in this brief discussion of educational woes, a good deal of the negativism could be traced to a widespread misunderstanding of education's role and potential in society; its institutional size, variety and complexity; and, the extent to which its development and function had become meshed with federal, provincial and local politics. For nearly a decade persistent efforts had been made to tackle these features of the educational tangle with little more success than achieving periodic holding actions. None of the fundamental problems had been resolved. By the spring of 1981 in Ontario, however, enough well-placed people in the educational, government and business establishments realized the dangers inherent in continuing this type of "business as usual" to cooperate in finding new ways to break the deadlock in solving such chronic problems.

The initiative for change came from the Executive Committee of the Cabinet who realized that time was short to prevent a genuine crisis developing in Ontario that would deter the society from realizing its future potential. Health care, the economy, inter-governmental relations and other sectors presented equally serious difficulties. Education, however, was judged to be central to all of them and it was a public sector where it seemed reasonable to expect changes could be initiated over several years, setting the pattern for the future, without risking panic in the province and further undermining public support. In some respects this position held many contradictions but they seemed manageable since the essential first steps could be taken privately and enough time remained to initiate a convincing illusion of evolutionary progress. Of all the major segments of the society, education had demonstrated its capacity to tolerate policy reversals without major disruptions to its place in provincial affairs. The "ability" that many critics thought to be a fatal weakness of the education system had the potential now to be an extremely valuable asset.

During the spring and summer of 1981 members of the government and senior civil servants held private consultations with carefully selected senior educators and business leaders. Not only did these discussions provide the government with invaluable assessments of the society's prospects but also the talks began the process of establishing a better cooperative working relationship between public and private sectors that was essential for longer-range planning and policy development. This small measure marked the beginning of reversing the negativism that engulfed education. Before the end of the decade the procedure grew to the point where it could be hailed as a genuine revolution in public opinion that made possible other essential innovations in the democratic process, politics and public policy.[1]

At the same time the government took steps to put its own house in order. Early in the fall of 1981 a new Minister of Education was appointed; Branches within the Ministry were reorganized; several traditional responsibilities were shifted to the Ontario Teachers' Federation and the Universities; and, the quasi-divided sections of the Ministry, Education/Colleges and Universities, were united. Soon thereafter appropriate changes were made in the bureaucratic and administrative structure of education to bring all levels into a closer working relationship.

Policy initiatives that were ongoing in the system were honoured and steps were taken gradually to implement the recommendations of various studies. It was made clear, however, that they would be integrated with a new attempt to formulate more long-range and more comprehensive educational policy; mid 1983 was set as the target date to begin initiation of new, broad directions in education. Until then educators were warned not to expect major alterations in funding; in the interim the emphasis would be on an extremely comprehensive examination of future needs for the province and on achieving new elements of cooperation among educational institutions, business and industry, and the government. During this period, it was to be hoped, the public would develop a new level of understanding regarding the importance of education, an attitude essential to acceptance of its costs and benefits, financially and in non-material ways.

In this fashion the government responded responsibly to the private, expert advice it had received. And, it set a rapid, no-nonsense pace for reform in a major sector of the society along imaginative, rather daring lines with the potential to achieve the revitalization of values, attitudes and actions necessary to attain equal successes in other key sectors. Put rather too simply, the provincial government provoked a "boot-strap" operation which not only illustrated how well Ontario could live by its wits but also one that demonstrated how important it was to educate the wits by which one must live to expect success in the future.

In January 1982 the Ministry of Education announced a major commission to investigate alternative models for post-industrial Ontario education to 2005 and to coordinate the activities of four related sub-commissions investigating the following issues:

a) Alternatives to Contemporary Patterns of Unemployment, Work, Leisure and Education in Ontario Society.

b) Alternative Arrangements to Expand Life-Style Opportunities for Citizens of Ontario Utilizing Existing Pensions and Variations in Public Education to Promote Recurrent, Life-Long Learning to Begin As Early As Pre Nativity Programs.

c) Alternative Models for the Establishment of Regional Education Units Including All Levels and Methods of Expanding All Types of Educational Opportunities Throughout Ontario.

d) Appropriate Measures to Encourage the Adoption of State-of-the-Art Communications Technology in Ontario Homes, Workplaces and Schools With Recommendations Regarding the Role of Government, Finances Required and the Advantages of Standardization of Canadian-Made Microelectronics Equipment.[2]

The sub-commissions represented the beginnings of an attempt by the Ministry of Education to achieve more holistic planning on a rolling basis to guide policy. They were instructed to work quickly; their reports were scheduled in advance for publication immediately on their receipt in May 1983. The final Commission report was to be completed and published not later than November 1983 or sooner, if possible.

In October 1981, another aspect of holistic planning came into effect. The Ministry implemented a new internal policy of commissioning "standing watching briefs" on selected areas of research which had wide-ranging potential for altering the appropriate role of education in society. These projects were funded generously and served as an early warning system for the Ministry of Education to overcome the most inhibiting effects of disseminating the results and implications of new knowledge. From time to time a carefully selected Board suggested new research areas to be watched. Each commissioned project was required to report progress in research on a global basis every six months, to provide an analysis of implications for education and to suggest potential new research initiatives.

The first two commissions were awarded on the creative potential surrounding genetic engineering and the escalation of research into the mysteries of the brain which encompassed various techniques being developed to expand human intellectual potential. The latter project initially included various consciousness and learning-expanding drugs; within a year drug assisted learning became the third area to be examined persistently. In these ways, the Ministry of Education took its own steps to protect public interest in education giving a rather sharper meaning to the chapter in *Issues and Directions* (1980) entitled "Anticipating and Preparing For The Future" than had been envisioned at the time it was written.[3] Other Ministries adopted similar approaches which were coordinated inside Queen's Park and the results were channeled into the government's overall strategic planning process.

Many sceptics heaped criticism on these planning tactics and scorned the apparent impossibility of the Commission's tasks. Subsequent events, however, exposed them as prophets with too little faith in human ingenuity and too few insights into the realm of the possible in the modern world. The Commission on Alternative Models for Post-Industrial Ontario Education (CAMPIOE) helped maintain public attention on the need for change in education and, in broad terms, provided the government with sustained political support. Not only was CAMPIOE completed on time but also the report exposed many of the practical aspects of policies necessary to transform Ontario society for the remainder of the 80s. The complex work of implementation began prior to the provincial election of 1986 and escalated later in the decade; it continued through the 90s and into the twenty-first century with regular re-examinations of policy directions for appropriateness and workability as circumstances changed. In several instances the watching briefs on new knowledge proved their value.

At the same time Ontario experienced the new federalism created by the repatriated and revised B.N.A. Act, equally significant changes took place within the province. In many respects, there proved to be considerable similarity in the two activities. Nationally Canadians accepted diversity in regional development, cultural integrity, values systems and life-styles. Also, they accepted a high degree of interdependence in energy, defence, trade, communications, environmental protection, resource conservation and international affairs. The entire nation experienced many of the socio-economic impacts of the scientific-technical revolution which characterized post-industrialism; Ontario found itself in a position to provide much leadership regarding the future of Canada and its place in the world.

While Canadians continued to depend on governments more than ever, electronic communication systems were used to keep citizens better informed and were consulted more frequently. As participation in decision-making grew, the importance of quality-of-life considerations rose in prominence, curbing advocates of unlicensed economic growth. The work ethic declined perceptibly in many people's minds. Old distinctions became blurred among work, education, leisure, culture and avocation. More respect for cooperation replaced heavy reliance on competition.

Individual initiative and free enterprise continued to be highly valued but each characteristic of Canadian culture had its sharp edges ground away by threatening circumstances which gave greater practical recognition to the qualities of sharing and interdependence in people's activities. Life-styles relying on excessive material consumption began to change to greater reliance on the enriching values available through the consumption of experiences; personal educational development, sport, recreation, the arts, fitness, various forms of religious and psychological self-realization began to be seen rather differently by many Canadians.[4] The conservation and development of human resources eventually came to surpass concern for the conservation and development of non-renewable energy resources.

The educational planning activities in Ontario between 1981 and 1986 put the province at the forefront of trends which developed more slowly

elsewhere in Canada. It was the work of CAMPIOE that led to many positive measures to alter the life-styles of Ontarians; the ideas eventually spread to other parts of the country. For example, the concept of compulsory retirement at any age ended legally in 1985. Subsequent alterations in the availability of private and public pension funds, guaranteed by government, resulted in full employment being achieved very quickly. The Minister of Education secured the necessary initial federal-provincial cooperation for the plan to be tried experimentally in Ontario with the backing of the Council of Ministers of Education, Canada and the Prime Minister's representative to the Council.

An experimental prototype of the plan which rapidly gained acceptance among the general public was applied in sectors of the work force where circumstances had led to much redundancy and massive layoffs. Journalists, automotive production workers, teachers, and some seasonally employed trades people were the first to benefit. Within two years, however, it became clear that the concept could be applied more generally in society. The federal government agreed to cooperate fully with any province that chose to develop the scheme which promoted more varied life-styles for citizens of all ages. Once again, some believed that the hoary red menace of creeping socialism would finally arrive and swallow us up, the same fate that was supposed to befall nations that adopted old-age pensions and unemployment insurance not to mention baby bonuses and mother's allowances. Of course, no such thing happened. Ontario opted for the plan on a permanent basis early in 1988. Insurance companies proved to be as remarkably adaptive as did the public, their customers.

By 1992 unemployment, retirement, job retraining and mid-life crisis as they were understood in the early 80s lost all meaning. As long as they retained good health, Ontario citizens were regarded as being fully employed in one of education, work or leisure activities. As well, all citizens continued to enjoy the usual range of personal pursuits characteristic of the society. The traditional joys of childhood remained much the same even though voluntary education programs began at birth and had been compulsory in varied formats from the age of two since 1985. Without radical departures in most values much greater variety and choice of activity, within the limits of some sensible restrictions, came to characterize individual life-styles.

Clearly, it was not practical to switch whimsically from any one of these three activities — education, work or leisure — to another. Necessary limitations governed the frequency of change and the length of time one might be occupied with educational and leisure activities. Also, regulations were devised to govern the length of time one might enjoy work. These varied according to the nature of the activity and made no appreciable change in traditional vacation periods. It was no longer necessary, however, as a rite of passage, to reserve one's leisure years to coincide with advanced age or to end one's formal education as a youth or to remain in a detestable job for 35 years simply to protect one's benefits and live decently.

Rather abruptly a great many other concepts tumbled like Humpty Dumpty. Unionization, recurrent education, early retirement, life-long learning, registered retirement savings plans, continuous education, the greying of Ontario and adult education either disappeared or were redefined. Economists were baffled; actuaries had a field day; bankers and brokers scrambled to find new investments for unprecedented amounts of private capital brought to them for safe keeping and growth.

The socio-economic and political risks of altering the life-style pattern had been great but the advantages in doing so were even more imposing. The opportunity for many other changes occurred simultaneously with renewed reasons for cooperation to continue among sectors of society that had traditionally been adversarial and frequently disruptive. Ontario had created the basic circumstances for the province to cope more than satisfactorily with rapid change; the province maintained a stable economic momentum while adjusting to the advantages of technological and scientific achievements.

During the late 80s and 90s some of the significant changes in education represented achievements which had never before been accomplished even though some attempts had been made years before. Gradually, the provincial system was divided into regional units consisting eventually of all types of educational institutions.[5] Their control and administration was maintained locally although elected school boards disappeared completely very early in the change to regional organization. School days for children and adolescents soon reflected a good deal of healthy diversity across the province. Changes in the old routine pattern of life styles in the province combined with the initiative of educators who were allowed to function in a more experimental way to produce exciting results. The lock-step approach to life had been broken; the lock-step sequence of educational experiences and educational reform both shattered shortly thereafter.

As all levels of education worked together more closely, several successful plans were developed to revise and regularly update the public school curriculum. Each region slowly developed rather unique approaches to credentialization by combining the resources and expertise available from various levels within their jurisdiction. CAATs in particular underwent striking changes as did secondary school technical-vocational programs. Disruptive gaps between elementary, secondary and post-secondary teachers closed as did those between educators, parents, businessmen, the representatives of industry and labour. Many of the values and educational ideas expressed in *To Herald A Child* (1981) began to be applied in prac-

tical terms by the latter part of the 80s as part of a revived emphasis on excellence and humanitarianism in public education.

Class sizes dropped as technology came to play a very significant role in education. The use of schools changed and professional educators became more consultants than classroom custodians; their subject expertise was accompanied by equal competence in learning techniques, communications skills and curriculum design suitable for electronic transmission. Extensive government support for the application of communications systems in the home helped stimulate the economy, encouraged the application of the equipment in the business world, speeded up change in education and contributed greatly to maintenance of the Canadian industry's early lead in microelectronics. "Knowledge workers" of exceptional quality and variety dominated the provincial work force.

The quality of teaching improved and working conditions for all educators made steady gains. The public could now fully understand their relationship with the achievement of educational excellence and provisions for a similarly fine living environment. A much greater diversity of goals and services was available to the public by the turn of the century. Leisure received more educational attention, the concept of general education became broader and the old interest in career education in the early years of education disappeared. A greater variety of learning models came to be widely used — home education, small groups, community living, structured programs of various lengths and unstructured approaches appeared in the regional systems. Extensive use was made of soft-wired curriculum packages produced in Ontario and many schools became learning clinics.

Mental health as well as stress reduction exercises attained a respected place in school curricula. Fitness, dexterity, music, drama, yoga and dance no longer were regarded as frills. Students acquired a variety of intellectual skills throughout their education including inquiry techniques, the use of information systems, lateral thinking, heuristic thought processes, various approaches to creativity and systems thinking. In general, people of all ages learned how to learn in many ways that opened the way for them to come to grips with the fundamental consideration of determining what knowledge is of most worth and what is the most appropriate way to organize it. Useful communication skills came to be defined very broadly and many curricula stressed values particularly those of simplicity, ecological respect, tolerance of diversity and the personal skills required to cope with ambiguity and uncertainty.[6]

Universities changed too in the 90s. Their alterations, however, were less visible and less extensive for legitimate reasons than the remodeling accomplished in institutions at other levels of education in the province. There was less need for them to change academically but progress was made in reorganizing the discipline basis of knowledge. Enrolments stabilized, funding levels were made satisfactory after 1983-84 and research came to be supported more generously. The universities found they could contribute more directly to societal goals and priorities without sacrificing their autonomy; most important the university was encouraged to retain its crucial role as an unimpeachable but responsible critic of the society.

Safeguards for academic integrity were not challenged by either the public or the government as the essential role of universities became more generally accepted. By 2005 nearly 85 percent of Ontarians between 18 and 75 years of age had experienced some form of post-secondary education; the figure would not have been attainable had Ontario universities not made extensive efforts to accommodate the needs of adults. Finally, long before the end of the 90s many universities worked in very close cooperation with other schools in their regions of the province, an extremely important development which contributed greatly to maintaining the quality of public education and the successful operation of its decentralized organization.

In all respects, Ontario's early investment in natural, human and intellectual resources paid handsome dividends which more than justified the political, social and economic risks involved. Much initial scepticism was overcome by leadership from the government and a new sense of security among an aging society who could count on superb health care and a belief that prosperity would be assured even though one might not expect taxes to decrease. Most important, quality-of-life considerations were at the forefront of social and economic policy restoring faith in the future and creating a climate which made change exciting rather than threatening. Ontario entered the twenty-first century enjoying stable democratic government, an intelligent level of prosperity and social justice, economic vitality and a well-earned reputation as an enlightened, innovative society which had developed the highest living standards in the world.

Postscript

Since some readers may doubt the veracity of this moderately optimistic scenario a few cautious concluding remarks regarding its use may be in order. In a recent article entitled "Looking Into The Future", John Kettle fortuitously wrote precisely what I think ought to be said at this point.

> A government that wants to consider what it would do if something unforeseen happened cannot write down every imaginable eventuality, but it can try to make plausible descriptions of several kinds of different futures. The scenarios thus created must be short enough to be grasped conceptually, comprehensive enough to be criticized, analyzed, and rewritten, specific enough to permit planners to work with

them. Unlike forecasts, scenarios are almost certain to be wrong; but if the scenarist has been imaginative enough, several of them will include the kind of thing that is going to happen some unhappy day. (Or happy day; nothing dictates that scenarios have to be gloomy.)[7]

Notes

1. See sections 6.2 and 6.1
2. For contemporary studies see: M.J. McLean. *The Impact of the Microelectronics Industry on the Structure of the Canadian Economy*. (Occasional Paper No. 8) (Montreal: Institute for Research on Public Policy, 1979) and G.B. Thompson. *Memo from Mercury: Information Technology is Different*. (Occasional Paper No. 10) (Montreal: Institute for Research on Public Policy, 1979).
3. *Issues and Directions: The Response to The Final Report of the Commission on Declining School Enrolments in Ontario*. (Toronto: Ministry of Education/Ministry of Colleges and Universities, June 1980), pp. 60-65.
4. Many of the ideas in the last two paragraphs appear in a working paper, entitled "Ontario Green," prepared by Dr. Norman Henchey as part of this scenario project.
5. A plan for regional educational administration in Ontario was suggested in 1967 by Robin Harris just prior to the establishment of county units by the Ministry which was a more appropriate design at the time. See: Robin S. Harris, *Quiet Evolution: A Study of the Educational System of Ontario*. (Toronto: University of Toronto Press, 1967), pp. 141-147.
6. Henchey, "Ontario Green," in a more general sense than in footnote 4.
7. John Kettle, "Looking Into The Future," in *Executive*. Vol. 22 No. 10 (October 1980), p. 17.

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